

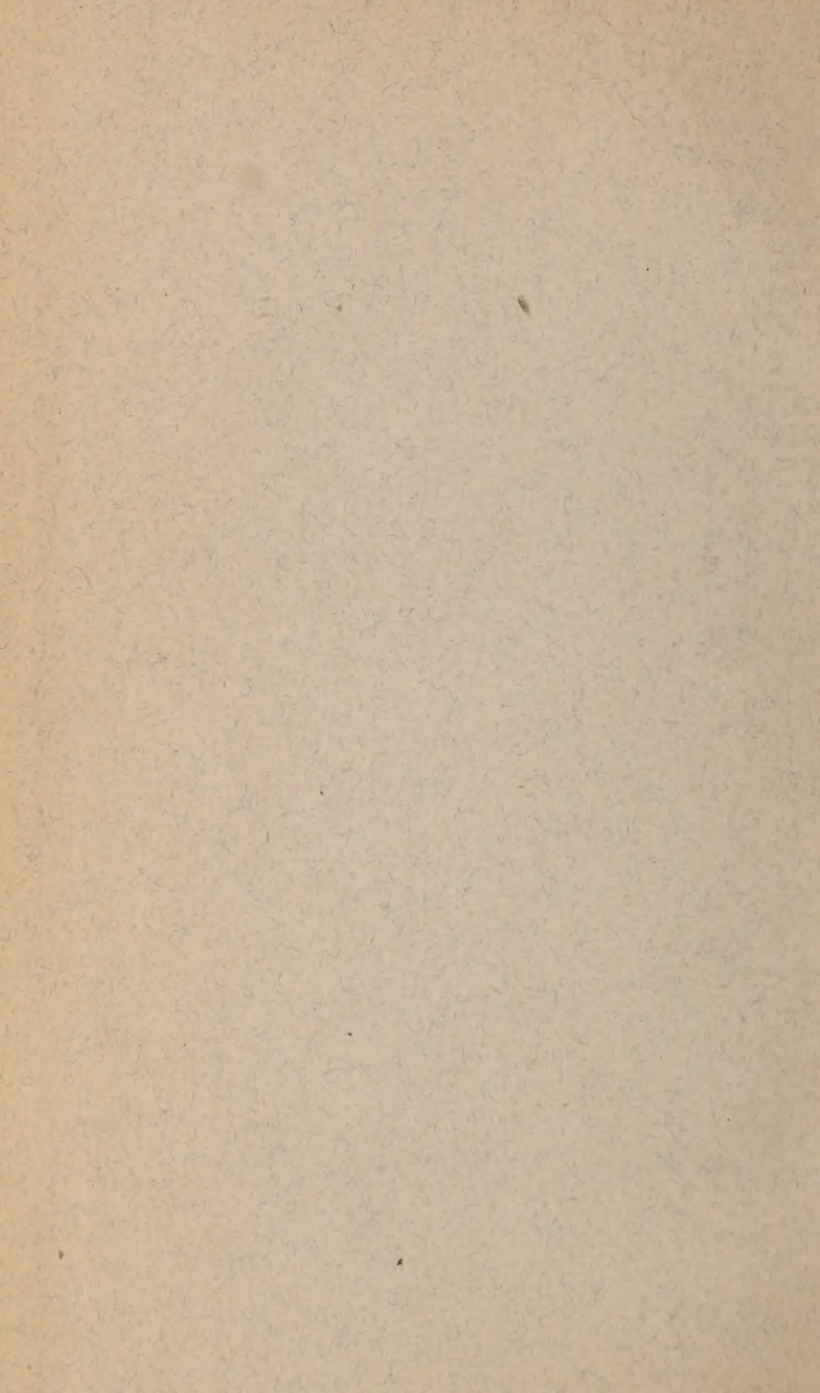
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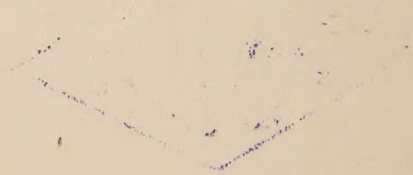
THE NEW YORK BOTANICAL GARDEN

Given by M^{rs} N. L. Britton
1901

Septemb 1899

R. W. Gibson. inv.





Autograph annotated copy of C. F. Austin - 29

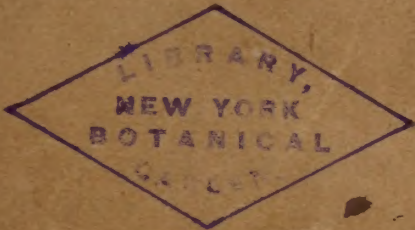
MUSCI APPALACHIANI:

TICKETS OF SPECIMENS OF

MOSES

COLLECTED MOSTLY IN THE EASTERN PART
OF NORTH AMERICA.

By C. F. AUSTIN.



CLOSTER, NEW JERSEY.
1870.

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CANTABRIGIÆ:
TYPIS WELCH, BIGELOW, ET SOC.,
ACADEMIÆ TYPOGRAPHORUM.

MUSCI APPALACHIANI.

1. *Sphagnum Portoricense*.

Hampe. — *Sulliv. Icon. Musc.* p. 3, t. 2. — *Sphagnum Sullivantianum*, *Austin in Amer. Jour. Sci.* 1863, p. 252.

HAB. Ponds and pools of Southern New Jersey.

2. *Sphagnum Austini*.

Sulliv. Icon. Musc. Suppl. 1, *ined.*

Species spectabilis, statura et habitu *S. Portoricensi* atque *S. cymbifolio* similis, a primo distincta foliis apice intensius colorato minus cucullatis basi haud subito angustatis, reti ampliore, etc., a secundo cui similior foliis fimbriatis, cellulis chlorophylliferis quasi hispidulis, sectione transversa omnino diversa, numero (constanter 3) ramulorum in quoque fasciculo, etc.

HAB. Swamps near Farrago and Manchester, Ocean County, New Jersey (*C. F. Austin*, 1862).

3. *Sphagnum cymbifolium*.

Ehrh. — *Schimp. Monogr.* p. 69, t. 19.

HAB. Swamps and low grounds, almost everywhere.

4. Sphagnum cymbifolium, pl. masc.

HAB. Same as the preceding.

5. Sphagnum cymbifolium.

Var. β . pycnocladum.

HAB. Swamps, common.

6. Sphagnum cymbifolium.

Var. γ . squarrulosum.

HAB. Inundated swamps, common.

7. Sphagnum rigidum.

Schimp. Monogr. p. 65, t. 18.

HAB. On moist rocks on mountains; also in the pine barren swamps of Southern New Jersey.

8. Sphagnum rigidum.

Var. humile. — *Sph. humile, Schimp. — Sulliv. Icon. Musc. p. 5, t. 3.*

HAB. Low sandy places, New Jersey (Closter, &c.) to Florida.

9. Sphagnum Mulleri.

Schimp. Monogr. p. 73, t. 26.

HAB. Bogs, Southern New Jersey to Florida.

10. Sphagnum molle.

Sulliv. Icon. Musc. p. 7, t. 4.

HAB. Same as the preceding.

11. Sphagnum molluscum.*Bruch.* — *Schimp. Monogr. p. 71, t. 21.*

HAB. Peat-bogs of Southern New Jersey. Also New Brunswick, Canada, *Rev. J. Fowler.*

12. Sphagnum acutifolium.*Ehrh.* — *Schimp. Monogr. p. 56, t. 13, 14.*

HAB. Swamps and bogs, common.

13. Sphagnum acutifolium.

Var. *confertum.*

HAB. Open bogs, New Jersey.

14. Sphagnum acutifolium.

Var. *purpureum*; foliis caulinis apice subacutis vel valde obtusis atque subfimbriatis patulis arcte appressivis, ramulinis nonnullis arcte aliis laxè imbricatis; inflorescentia fere semper dioica.

HAB. Peat-bogs, common.

15. Sphagnum acutifolium.

Var. *intermedium*; foliis ramulinis omnibus laxè imbricatis ad apicem margine inflexo sensim acuminatis, colore intensius purpurea: inter var. *purpureum* et var. *rubellum* medium tenens.

HAB. Peat-bogs, Southern New Jersey. Also New Brunswick, Canada (*Fowler*), where it plainly passes into the following.

16. Sphagnum acutifolium.

Var. *rubellum*; foliis ramulinis brevioribus vix acuminatis omnibus laxè imbricatis. — *Sph. rubellum*, *Wils.* — *Schimp. Monogr. p. 71, t. 20.*

HAB. New Brunswick, Canada, *Rev. James Fowler.*

17. Sphagnum acutifolium.

Var. fuscum.

HAB. Peat-bogs, Northern New Jersey and Canada.

18. Sphagnum acutifolium.

Var. robustum.

HAB. Cedar swamps, about Farrago, Ocean County, New Jersey, associated with Nos. 2 and 15.

19. Sphagnum fimbriatum.*Wils.* — *Schimp. Monogr. p.* 59, *t.* 15.

HAB. Swamps on the Palisades, near Closter, New Jersey.

20. Sphagnum Girgensohnii.*Russow, Beitrage zur Kentn. der Torfm.* 1865. — *Sphagnum fimbriatum*, var. *majus*, *Auctt.* — *Sph. strictum*, *Lindb. Mss. olim.*

HAB. Swamps and bogs, Northern New Jersey to Canada.

21. Sphagnum teres.*Angstroem, Skand. Fl. ed.* VIII. *p.* 417. — *Sulliv. Icon. Musc. Suppl.* 1, *ined.* — *Sphagnum squarrosum*, var. *teres*, *Schimp. Monogr. p.* 64.

HAB. Low grounds, Closter and Southern New Jersey, rare.

22. Sphagnum squarrosum.*Persoon.* — *Schimp. Monogr. p.* 63, *t.* 17.HAB. Mountains of Pennsylvania, *Prof. T. C. Porter.* New York, *Prof. C. H. Peck, Dr. E. C. Howe.* Canada, *John Macoun, Rev. James Fowler.*

23. Sphagnum Pylæsii.

Brid. — *Sulliv. Icon. Musc. p. 12, t. 6.* — *Suppl. 1, ined.*

HAB. Stagnant pools and marshes on the *bog-ore beds* in Southern New Jersey. Also on the Adirondack Mountains, New York, *Peck.*

24. Sphagnum Pylæsii.

Var. *sedoides*. — *Sphagnum sedoides, Brid.* — *Sulliv. Icon. Musc. p. 11, t. 6.*

HAB. On the Adirondack Mountains, *Peck.*

25. Sphagnum cyclophyllum.

Sulliv. & Lesqx. — *Sulliv. Icon. Musc. p. 13, t. 6.* — *Suppl. 1, ined.*

HAB. With No. 23, in Southern New Jersey.

26. Sphagnum neglectum.

Angstr. in Ofvers K. Vet. Akad. Forh. 1864. — *Sulliv. Icon. Musc. Suppl. 1, ined.* — *Sphagnum subsecundum, C. Mull. Synop. Musc. II. p. 539.*

HAB. In an open grassy bog, near Closter; New Jersey. Also in Ohio, *Sullivant.*

27. Sphagnum neglectum, var.

HAB. Rocky swamps on the Palisades, near Closter, New Jersey.

28. Sphagnum subsecundum.

Nees. — *Schimp. Monogr. p. 74, t. 22, 23.*

HAB. Low grounds, very common in New Jersey.

29. Sphagnum subsecundum.Var. *Lescurii*.

HAB. Inundated swamps and sluggish water, Southern New Jersey.
Also in the Southern States, *Lesquereux*.

30. Sphagnum subsecundum, pl. masc.

HAB. Same as No. 28.

31. Sphagnum laricinum.

Spruce. — *Angstr. in Ofvers K. Vet. Akad. Forh.* 1864.

— *Sulliv. Icon. Musc. Suppl.* 1, *ined.* — *Sph. contortum*, var. *laricinum*, *Wils. Bryol. Brit.* p. 22.

Forsan hybrida inter *S. subsecundum* et *S. cuspidatum*.

HAB. Marshes and bogs, Sandlake, New York, *Peck*.

32. Sphagnum Wulfianum.

Girgensohn in Archiv für die Naturkunde Liv.-Est. und Kurlands, 2 ser. II. p. 173 (1860). — *Bot. Zeit.* (1862) p. 274. — *Sulliv. Icon. Musc. Suppl.* 1, *ined.* — *Sphagnum pycnocladum*, *Angstr. in Rabenh. Bryotheca*, no. 709 (1864).

HAB. Canada, *Macoun, Fowler*. New York, *Howe, Peck, Austin*.

33. Sphagnum cuspidatum.

Ehrh. — *Schimp. Monogr.* p. 60, t. 16.

HAB. Inundated bogs and stagnant water, common.

34. Sphagnum cuspidatum.

Var. *laxifolium*, *Aust. in Amer. Jour. Sci.* 1863, p. 255.

HAB. In pools, near Closter, New Jersey.

35. Sphagnum cuspidatum.Var. *Torreyanum*, *Aust. l. c.*

HAB. Ponds and pools of Southern New Jersey ; rarely fertile.

36. Sphagnum cuspidatum.Var. *plumosum*, *Aust. l. c.*

HAB. With the preceding.

37. Sphagnum cuspidatum.Var. *parvum*.HAB. With *S. molluscum*.**38. Sphagnum cuspidatum.**

Var. *recurvum*. — *Sph. recurvum*, *Beaur. Prodr. p.*
88. — *Sph. Mougeotii*, *Schimp. in Mony. et Nestl.*
Stirp. Crypt. Voges.-Rhen. fasc. XIV. no. 1306.

HAB. Bogs, New Jersey to Canada and Michigan.

39. Sphagnum cuspidatum.

Var. *recurvum (major)*, *Aust. in Amer. Jour. Sci.*
1863, *p.* 255. Foliis ramulinis latioribus, apicalibus
haud attenuatis, colore amœne flavescente-viridi,
sporis sulphureis.

HAB. Cedar swamps, common.

40. Sphagnum Lindbergii.*Schimp. Monogr. p.* 67, *t.* 25.HAB. Slopes of Whiteface Mountain, New York, *Peck.***41. Sphagnum macrophyllum.***Bernhardi*. — *Sulliv. Icon. Musc. p.* 1, *t.* 1.

HAB. Ponds, Southern New Jersey to Florida ; rarely fertile.

42. *Andræa petrophila*.

Ehrh. — *Bryol. Europ.* VI. t. 623. — *A. rupestris*,
Hedw.

HAB. On steep dry rocks and boulders near Closter and Sparta, New Jersey. On Shawangunk Mountain and at Little Falls, &c., New York.

43. *Andræa rupestris*.

Turner. — *Bryol. Europ.* VI. t. 631. — *A. Rothii*,
Web. et Mohr.

HAB. On wet rocks near Suffern and Ramapo and on Shawangunk Mountain, New York ; also at the Delaware Water-Gap, New Jersey.

44. *Archidium Ohioense*.

Bryol. Europ. — *Sulliv. Icon. Musc.* p. 16, t. 7, *excl.*
calyptræ figg.

Calyptra minutissima, basi paullulum expansa cito rupta sublaceraque, ad capsulæ basin dejecta et a vaginula haud toto soluta ; stylo longiusculo.

HAB. Thin soil on rocks, New Jersey, New York, and Pennsylvania ; also in damp meadows, Ohio, *Sulliv.*, *Lesqx.* Illinois, *Bebb.*

MICROMITRIUM, (n. gen.)

Capsula globosa, immersa, tenera, apiculata vel mutica, clausa, vel pressa in medio horizontaliter fatiscens, brevissime pedicellata vel exacte sessilis. Calyptra minima, subdisciformis, styloidifera, arcte adhærens. Flores synoici. — Plantæ minutissimæ in prothallio bysoideo diu persistente sed inconspicuo nidulantes, foliis ecostatis laxissime areolatis : *Ephemer*a valde referentes distinctæ tamen calyptræ forma et minutie ; inflorescentia, etc.

45. *Micromitrium Austini*.

(*Sulliv.*) *Aust.* — Subacaule ; foliis patenti-recurvis ligulato-lanceolatis superne distincte serratis ; capsula apiculata brevissime pedicellata ; calyptra con-

centrica; sporis vix papillulosis $\frac{1}{1000}$ unc. diam. metientibus. — *Ephemerum Austini*, *Sulliv. in litt.* 1867. — *Sulliv. Icon. Musc. Suppl.* 1, *ined.*

HAB. On wet broken ground in woods, Closter, New Jersey.

46. *Micromitrium synoicum*.

(*James*) *Aust.* — Priori simillimum, sed differt caule longiore interdum gracilescente; foliis dissitioribus erectiusculis obsolete serrulatis; capsula mutica subirregulariter dehiscente; calyptra excentrica i. e. sæpius ad capsulae latus vel infra dejecta; sporis paullulum majoribus papillulosis.

Ephemerum synoicum, *James in Trans. Amer. Phil. Soc.* 1865, p. 106; *Musc. Exsicc. Sulliv. & Lesq.* ed. 2, no. 27. — *Sulliv. Icon. Musc. Suppl.* 1, *ined.*

HAB. On broken clayey ground in low meadows near Camden and Philadelphia.

47. *Micromitrium megalosporum*, *Aust.*

Statura præcedentium; caule perbrevis; foliis late ovato-lanceolatis obtuse serratis; capsula apiculata clausa exacte sessili; vaginula majuscula truncato-obovata; calyptra concentrica; sporis sublaevibus magnis $\frac{1}{400}$ unc. diam. metientibus. — *Sulliv. Icon. Musc. Suppl.* 1, *ined.*

Foliis latioribus leniter concavis incurvatisque, capsula pallidissima, etc., speciem hanc a præcedentibus statim dignoscitur.

(Forsan *Ephemerum tenerum* (*Bruch*) *Schimp. Synops. Musc. Europ.* p. 4, sed species distinctissima et ab *E. serrato*, notis supra expositis, toto cælo differt.)

HAB. With both the preceding, very rare.

47^b. *Ephemerum serratum*.

(*Schreb.*) *Hampe.* — *Bryol. Europ.* I. t. 1.

HAB. Fields and gardens, near Closter, New Jersey; Ohio, *Sullivan*; Cambridge, Massachusetts, and Philadelphia, *James*; very rare.

48. Ephemenum crassinervium.*Schwægr.* — *Sulliv. Icon. Musc.* p. 17, t. 8.

HAB. On damp ground, very common.

49. Ephemenum crassinervium.

Var. spinulosum.

HAB. Inundated or wet places, very common.

50. Ephemenum papillosum, Aust.

Foliis anguste lanceolatis serratis supra medium costatis dorso papillois; capsula ovato-globosa; calyptra cucullato-mitriformi, papillis conspicuis oblecta; sporis magnis fere lævibus. — *Sulliv. Icon. Musc. Suppl.* 1, *ined.*

HAB. On thin soil on rocks, Palisades, New Jersey.

51. Sphærangium muticum.

(*Schreb.*) *Schimp.* — *Acaulon muticum, Bryol. Europ.*
I. t. 4.

HAB. Old fields, New Jersey, &c.

52. Sphærangium triquetrum.

(*Spruce*) *Schimp.* — *Acaulon triquetrum, Bryol. Europ.*
I. t. 3.

HAB. Old sandy fields, near Tom's River, New Jersey.

53. Phascum cuspidatum.*Schreb.* — *Bryol. Europ.* I. t. 5.

HAB. Old fields, New Jersey, &c.

54. Pleuridium alternifolium.*Brid.* — *Bryol. Europ.* I. t. 10.

HAB. Old fields, very common.

55. *Sporledera palustris*.

Schimp. — *Pleuridium palustre*, *Bryol. Europ.* I. t. 10.

HAB. Old fields, New Jersey, *James*.

56. *Bruchia flexuosa*.

Schwægr. — *Sulliv. Icon. Musc.* p. 22, t. 13.

HAB. Wet meadows, about Closter and Camden, New Jersey.

57. *Systegium nitidulum*.

Schimp. — *Astomum nitidulum*, *Bryol. Europ. Mem.*

HAB. Old fields, New Jersey and Ohio, rare.

58. *Systegium Sullivanti*.

Schimp. — *Sulliv. Icon. Musc.* p. 20, t. 11.

HAB. Same as the preceding, very common.

59. *Systegium Sullivanti*, var.

HAB. Wet meadows, about Closter, New Jersey, common.

60. *Gymnostomum rupestre*.

Schwægr. — *Bryol. Europ.* I. t. 33, 34.

HAB. On damp shaded rocks, rather common.

61. *Gymnostomum curvirostrum*.

Hedw. — *Bryol. Europ.* I. t. 35, 36. Caule distincte papilloso.

HAB. On wet rocks, Godwinville, New Jersey; common northward and on mountains.

62. *Gymnostomum calcareum*.

Nees & Hornsch. — *Bryol. Europ.* I. t. 32.

HAB. On slate rocks, near Little Falls, New York; also near Belleville, Canada West, *Macoun*; sterile.

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63. Hymenostomum microstomum.*R. Brown. — Bryol. Europ. I. t. 16.*

HAB. Rocky ground, Palisades, New Jersey.

64. Anæctangium Peckii.*Sulliv. Icon. Musc. Suppl. 1, ined.*

Anæct. compacto proximum, distinguitur tamen statura majore, foliis longioribus ligulato-lanceolatis sensim acutissimis supra basin perbreve ovatam concavam subamplexantem leniter constrictis dehinc plus minus carinato-complicatis: flor. fem. et fr. haud visis.

HAB. Under overhanging rocks, Catskill Mountains, New York,
Charles H. Peck.

65. Weissia viridula.*Brid. — Bryol. Europ. I. t. 21.*

HAB. Old fields and banks, everywhere.

66. Weissia viridula, var. 1.

Statura minori, pedicello breviori, capsula breviori nitida rufo-brunnea siccitate haud sulcata.

HAB. Shaded, sandy banks, not common.

67. Weissia viridula, var. 2.

Pedicello capsulaque longioribus pallidioribus; foliis longioribus margine magis involutis; peristomii dentibus longioribus; sporis levibus duplo minoribus.

HAB. Same as preceding, and on coarse sandstone rocks, New Jersey.

68. Weissia viridula, var. 3.

Compacte caespitosa; foliis latioribus margine minus involutis apice magis mucronatis; floribus nonnunquam dioicis.

HAB. Crevices of exposed rocks, Little Falls, New Jersey, &c.

69. Weissia viridula, var. 3^r: pl. masc.

HAB. Same as the preceding.

70. Weissia serrulata.*Funk.* — *Bryol. Europ.* I. t. 27.

HAB. Crevices of exposed rocks and on the perpendicular face of moist rocks, Palisades and Delaware Water-Gap, New Jersey; Haverstraw and Shawangunk Mountains, &c., New York; sterile.

71. Rhabdoweissia fugax.*(Hedw.)* — *Bryol. Europ.* I. t. 41.HAB. Crevices of rocks, Delaware Water-Gap, New Jersey. Catskill Mountains, New York, *Peck*.**72. Rhabdoweissia denticulata.***(Brid.)* — *Bryol. Europ.* I. t. 42.

HAB. On rocks in ravines, Pascack, New Jersey. Rockland County, &c., New York, rare.

73. Dicranum viride. = *D. viride**Sulliv. & Lesq.* — *Sulliv. Icon. Musc.* p. 30, t. 18
(*sub Campylopode*).

HAB. Roots and trunks of trees, old logs, &c., common; always sterile.

74. Dicranum rufescens.*Turner.* — *Bryol. Europ.* I. t. 59.

HAB. On naked banks, along roadsides, &c., throughout Northern New Jersey and Southern New York.

75. Dicranum virens.*Hedw.* — *Bryol. Europ.* I. t. 48.

HAB. On decayed wood in mountainous districts, New York, &c.

76. Dicranum pellucidum.

Hedw. — *Bryol. Europ.* I. t. 50, 51; *Sulliv. & Lesqx. Musc. Bor. Amer. Exsic. Ed.* 2, no. 60.

HAB. On rocks subject to inundation in deep glens, near West Vernon, Sussex County, New Jersey; also near Marathon, New York; sterile.

77. Dicranum Schreberi.

Hedw. — *Bryol. Europ.* I. t. 53.

HAB. Wet rocks and banks, Hohokus, New Jersey; also near Little Falls, New York. Canada, *Macoun*.

78. Dicranum varium.

Hedw. — *Bryol. Europ.* I. t. 57, 58.

HAB. On moist banks; rare in Bergen County, New Jersey, but common in most places.

79. Dicranum heteromallum.

Hedw. — *Bryol. Europ.* I. t. 62.

HAB. On shaded ground, very common.

80. Dicranum heteromallum.

Var. *orthocarpon*.

HAB. Same as the preceding, or more commonly on banks.

81. Dicranum montanum.

Hedw. — *Bryol. Europ.* I. t. 67.

HAB. On decayed wood; also on roots and trunks of trees; common, but sterile, except in mountainous or northern regions.

82. Dicranum flagellare.

Hedw. — *Bryol. Europ.* I. t. 68.

HAB. Swamps, forming large solid cushions, very common.

83. Dicranum fulvum.

Hook. Musc. Exot. t. 149. — *D. interruptum*, *Bryol. Europ. I. t. 69*; *Sulliv. & Lesqx. Musc. Exsic. ed. 2, no. 73.*

HAB. Dry shaded rocks, common; also occasionally on the roots of trees in swampy places.

84. Dicranum longifolium.

Hedw. — Bryol. Europ. I. t. 72.

HAB. On shaded rocks and trunks of trees, in mountainous districts; Northern New Jersey, &c.

85. Dicranum scoparium.

Hedw. — Bryol. Europ. I. t. 74, 75.

HAB. On the ground in woods, common.

86. Dicranum scoparium.

Var. ϵ . recurvatum, *Schimp. Syn. Musc. p. 90.*

HAB. On the roots of trees in woods.

87. Dicranum scoparium.

Var. β . orthophyllum, *Schimp. l. c.*

HAB. Damp woods.

88. Dicranum scoparium.

Var. γ . curvulum, *Schimp. l. c.*

HAB. Dry rocks, Palisades, New Jersey.

89. Dicranum scoparium.

Var. minor.

HAB. Sandy banks, near Closter, New Jersey.

90. *Dicranum scoparium*.

Var. *rupestre*. — *Sulliv. & Lesqx. Musc. Exsic. ed. 2, no. 76.*

HAB. On granitic and trap rocks about Little Falls and in the mountains of New Jersey; usually sterile.

91. *Dicranum scoparium*.

Var. δ . *paludosum*, *Schimp. l. c.*

HAB. Springy places in swamps near Closter, New Jersey.

92. *Dicranum palustre*.

La Pyl. — *Bryol. Europ. I. t. 79.*

HAB. Peat-bogs, Pennsylvania and Ohio, *Lesquereux*. Canada, *Macoun*.

93. *Dicranum Schraderi*.

Schwægr. — *Bryol. Europ. I. t. 80.*

HAB. Swamps and wet woods; common in New Jersey.

94. *Dicranum Schraderi*, var.

HAB. Peat-bogs, Northern New Jersey, &c.

95. *Dicranum spurium*.

Hedw. — *Bryol. Europ. I. t. 81.*

HAB. Rocks on mountains, Northern New Jersey to Canada, rare.

96. *Dicranum spurium*, var.

D. condensatum, *Hedw. sp. Musc. p. 139, t. 34.*

HAB. A, with the preceding, near Coleville, New Jersey; B, in dry white sand in the pine barrens of New Jersey; very common.

97. *Dicranum undulatum*.

Turner. — *Bryol. Europ. I. t. 82, 83.*

HAB. On rocks and on the ground in dry rocky woods, Palisades, near "Baumpies Hook," New Jersey, &c.; common in mountainous districts.

✕ **98. Dicranum robustum.**

Blytt. — *Bryol. Europ.* I. t. 84. — D. Drummondi,
C. Mull. Synop.; *Sulliv. Mosses of the U. S.*, p. 23.

HAB. Swamps about Closter (sterile); Pine barrens of New Jersey,
James. Catskill Mountains, *Pick.* Canada, *Mucoun.*

99. Leucobryum glaucum.

(*Linn.*) — *Oncophorus glaucus*, *Bryol. Europ.* I. t. 97,
98. — *Leucobryum vulgare*, *Hampe et auctt. plur.*

HAB. On the ground in woods, very common.

100. Fissidens bryoides.

Hedw. — *Bryol. Europ.* I. t. 101.

HAB. Steep shaded banks and in green-houses, not rare.

101. Fissidens incurvus.

Schwægr. — *Bryol. Europ.* I. t. 99.

Inflorescentia, foliorum forma et structura, etc., maxime
variabilis; annulo (qui semper adest) cum operculo
deciduo.

HAB. On the ground and on rocks, chiefly along streams. (Covers
a multitude of nominal species, and appears to occur, in one or more
of its forms, in all parts of the habitable globe.)

102. Fissidens incurvus, var.

F. minutulus, *Sulliv. Icon. Musc. p. 37, t. 24.*

HAB. On stones in damp, shady or springy places, chiefly along
woodland rivulets, very common.

103. Fissidens incurvus, var.

F. exiguus, *Sulliv. Icon. Musc. p. 36, t. 23.*

HAB. Same as the preceding, and in some localities occurring with
and plainly passing into it.

104. Fissidens osmundioides.

Hedw. — *Bryol. Europ.* I. t. 103.

HAB. Springy places in swamps; common about Closter, New Jersey.

105. Fissidens subbasilaris.

Hedw. — *Sulliv. Icon. Musc.* p. 41, t. 26.

HAB. A, on roots of trees in woods about Closter; B, on limestone rocks, Sussex County, New Jersey.

106. Fissidens adiantoides.

Hedw. — *Bryol. Europ.* I. t. 105.

HAB. On wet rocks, banks and swampy ground, very common.

107. Fissidens taxifolius.

Hedw. — *Bryol. Europ.* I. t. 104. Var. *Inflorescentia dioica*, foliis obtusis, costa haud excurrente.

HAB. On the ground in woods, not rare.

108. Conomitrium Julianum.

Mont. — *Octodiceras Julianum*, *Bryol. Europ.* I. t. 108.

HAB. Rocky streams, Northern New Jersey and Southern New York.

108^b. Conomitrium Hallianum.

Sulliv. & Lesqx. Mss. — Planta perpusilla cæspitans, sordide virescens; caule filiformi subunciali flexili parce ramoso; foliis remotis 5–10-jugis lineali-elongatis ascendendo majoribus, superiorum lamina apicali duplicaturam triplo superante, costa sub apice desinente, cellulis majusculis subquadratis; floribus masc. et fem. in ramis elongatis foliatis terminalibus; capsula ovali-oblonga platystoma modice pedicellata, operculo conico-rostrato capsula vix brevior, perist. dentibus longiusculis e lanceolato subulatis sine linea divisurali demisse insertis, calyptra parvula conica uno latere fissa. — *Sulliv. Icon. Musc. Suppl.* 1, ined.

HAB. On decayed wood in a well, Illinois, *E. Hall*. On shaded rocks moistened by spray, at Little Falls and Ogdensburg, New Jersey, *Austin* (1867).

109. Campylostelium saxicola.(Web. & Mohr). — *Bryol. Europ.* II. t. 116.

HAB. — On sandstone boulders, near Closter, New Jersey, rare.

110. Seligeria recurvata.(Hedw.) — *Bryol. Europ.* II. t. 112.

HAB. On moist shaded rocks, at Hohokus and Godwinville, New Jersey.

111. Pottia truncata.(Hedw.) — *Bryol. Europ.* II. t. 120, 121.

HAB. Roadsides, near Albany, New York; also about Philadelphia, James.

112. Pottia riparia, Austin.

Late cæspitosa, fusco-viridis; caule 2–4 lineas alto; foliis late oblongis vel subspathulatis planis usque ad apicem grosse serratum valide costatis lævibus minute areolatis; capsula gymnostoma oblongo-cylindrica in pedicello pertenui longe exserta, annulo lato duplici, columella longe emergente. — *Sulliv. Icon. Musc. Suppl.* 1, *ined.*

HAB. On moist rocks along streams, Palisades and Northern New Jersey and Southern New York; rarely fertile.

113. Didymodon rubellus.(Roth). — *Bryol. Europ.* II. t. 185.

HAB. On rocks along streams, Northern New Jersey to Canada.

114. Didymodon cylindricus.(Bruch). — *Bryol. Europ.* II. t. 187.

HAB. Moist rocks and banks, Northern New Jersey; also Southern and Central New York, rare; sterile.

115. Didymodon ? diversifolius, Austin.

Dense cæspitosus, lurido vel fuscescente viridis ; caule subunciali gracili ; foliis patenti-recurvis obtusis vel nonnullo acutiusculis canaliculatis fere ad apicem costatis subpapillosis subuniformi-areolatis, marginibus integerrimis recurvis longissime decurrentibus : fl. masc. et fructu ignotis.

HAB. On slate rocks, in a ravine, near Newville, Herkimer County, New York (1868). About Niagara Falls, S. T. Olney.

116. Ceratodon purpureus.

Bril. — *Bryol. Europ.* II. t. 189, 190.

HAB. On the ground, very common.

117. Ceratodon purpureus.

Var. aristatus. Foliis angustioribus costa longe excedente instructis ; capsula pedicelloque pallidioribus : forsan species propria.

HAB. In the sandy barrens of New Jersey.

118. Trichostomum tortile.

Schrad. — *Bryol. Europ.* II. t. 179.

HAB. Roadsides, frequent.

119. Trichostomum lineare.

(Swartz). — *Didymodon linearis*, Swartz *Adnot. Bot.* p. 100 (1829). — *Trichostomum vaginans*, *Sulliv. Musc. Alleghan.* (1846) ; *Icon. Musc.* p. 43, t. 28 (1864).

HAB. Roadsides, &c., New Jersey and Southern New York, common.

120. Trichostomum pallidum.

Hedw. — *Bryol. Europ.* II. t. 183.

HAB. On the ground, very common.

121. *Trichostomum glaucescens*.

Hedw. — *Bryol. Europ.* II. t. 184.

HAB. Crevices of rocks, Little Falls, New Jersey, and Haverstraw, New York.

122. *Desmatodon arenaceus*.

Sulliv. & Lesqx. — *Sulliv. Icon. Musc.* p. 45, t. 29.

HAB. On the ground, Closter and Southern New Jersey, rare and mostly sterile.

123. *Desmatodon Porteri*.

James, Mss. — Habitu staturaque *D. obtusifolio* similis, ab hoc et aliis congeneribus foliis margine erectis atque limbo pellucido plus minus distincto superne circumductis statim distinguitur. — *Sulliv. Icon. Musc. Suppl.* 1, *ined.*

HAB. On rocks, "College Hill," Easton, Pennsylvania, *Prof. Thos. C. Porter*; also Niagara Falls, *G. W. Clinton*.

124. *Barbula unguiculata*.

Hedw. — *Bryol. Europ.* II. t. 142, 143.

HAB. On the ground, and on old walls, common.

125. *Barbula fallax*.

Hedw. — *Bryol. Europ.* II. t. 147.

HAB. Closter and Northern New Jersey to Canada, rare.

126. *Barbula convoluta*.

Hedw. — *Bryol. Europ.* II. t. 154.

Var. foliis angustioribus ligulatis valde obtusis made-factis minus recurvis papillis majoribus obtectis, costa sub apice desinente, perichætialibus intimis costatis muticis apice subdenticulatis; pedunculo magis tortuoso.

HAB. On alkaline earth, not common.

127. *Barbula cæspitosa*.*Schwegr.* — *Bryol. Europ.* II. t. 149.

HAB. About the roots of trees, common.

128. *Barbula tortuosa*.*Web. & Mhr.* — *Bryol. Europ.* II. t. 151.

HAB. On rocks, common; rarely fertile.

129. *Barbula fragilis*.*(Hook. & Wils.)* — *Bryol. Europ.* VI. t. 639. — *Trichostomum fragile*, *Sulliv. & Lesq. Musc. Exsic. ed. 2, no. 149.*

HAB. On dry limestone rocks, at the New Jersey Zinc Mines; sterile.

130. *Barbula muralis*.*Hedw.* — *Bryol. Europ.* II. t. 159.HAB. On old walls, Palisades and Central New Jersey; also Eastern Pennsylvania, *Porter, James.***131. *Barbula ruralis*.***Hedw.* — *Bryol. Europ.* II. t. 166.HAB. Canada, *Macoun, Gilman.***132. *Barbula ruralis*.**Var. *rupestris.* *Schimp. Synop. Musc. Europ. p. 192.* — *Syntrichia intermedia*, *Brid. Bryol. Univ.*

HAB. On rocks at the foot of the Palisades; also about the Zinc Mines, Sussex County, New Jersey.

133. *Barbula papillosa*.*Wils.* — *Bryol. Brit. p. 135, t. 44.*

HAB. On the trunks of shade-trees, Central New Jersey; also on limestone rocks about the Zinc Mines.

134. *Grimmia apocarpa*.

Hedw. — *Bryol. Europ.* III. t. 233, 234.

HAB. On rocks, in moist ravines, common.

135. *Grimmia apocarpa*.

Var. *gracilis*.

HAB. On shaded rocks, Palisades and Greenwood Mountains, New Jersey.

136. *Grimmia apocarpa*.

Var. *rivularis*.

HAB. On rocks, in rivulets.

137. *Grimmia apocarpa*, var.

HAB. Same as the preceding.

138. *Grimmia conferta*.

Funk. — *Bryol. Europ.* III. t. 232.

HAB. On rocks and on the ground, Passaic Falls, New Jersey.

139. *Grimmia conferta*, var. 1.

HAB. On rocks and on the ground, in the limestone regions of Northern New Jersey.

140. *Grimmia conferta*, var. 2.

HAB. Dry limestone rocks, near Sparta, New Jersey.

141. *Grimmia conferta*, var. 3.

HAB. Dry, exposed trap rocks, near Haverstraw, New York.

142. *Grimmia ambigua*.*Sulliv. Icon. Musc. p. 66, t. 41.*

HAB. Rocks on "High Torng," near Haverstraw, New York.

143. *Grimmia Pennsylvanica*.*Schwægr. — Sulliv. Icon. Musc. p. 68, t. 43.*

HAB. A. on dry rocks, common; B. on rocks in streams, Northern New Jersey, scarce.

144. *Grimmia Olneyi*.*Sulliv. Icon. Musc. p. 67, t. 42.*

HAB. On exposed rocks, Palisades, and Northern New Jersey and Southern New York; also on rocks subject to inundation along the banks of the Passaic and Delaware Rivers.

145. *Grimmia Olneyi*, pl. masc.

HAB. River banks, with the preceding.

146. *Grimmia leucophæa*.*Grev. — Bryol. Europ. III. t. 257.*

HAB. Exposed rocks, Palisades, &c.; sterile.

147. *Racomitrium aciculare*.*Brid. — Bryol. Europ. III. t. 262.*

HAB. Rocky beds of streams, Palisades, New Jersey, &c.; rarely fertile.

148. *Racomitrium Sudeticum*.*Brid. — Bryol. Europ. III. t. 264.*

HAB. On irrigated rocks, Suffern, New York, and Northern New Jersey.

149. *Racomitrium microcarpum*.*Brid.* — *Bryol. Europ.* III. t. 268.

HAB. Exposed rocks, in the Ramapo Mountains of New York and New Jersey; rare.

150. *Hedwigia ciliata*.*Ehrh.* — *Bryol. Europ.*, III. t. 272, 273.

HAB. Exposed rocks and boulders, common; also occasionally on old logs, in swamps.

151. *Hedwigia ciliata*, var.

HAB. Inundated rocks, in the Passaic River, near Paterson and Little Falls, New Jersey.

152. *Drummondia clavellata*.*Hook.* — *Sulliv. Icon. Musc.* p. 52, t. 33.

HAB. On the trunks and branches of trees (particularly *Juniperus Virginiana*), and on old stone fences, very common.

153. *Ptychomitrium incurvum*.*Schwægr.* — *Sulliv. Icon. Musc.* p. 63, t. 39.

HAB. On old stone fences (rarely on rocks), Northern New Jersey and Southern New York.

154. *Amphoridium Lapponicum*.

(*Hedw.*) *Schimp.* — *Zygodon Lapponicus*, *Bryol. Europ.* III. t. 206.

HAB. Crevices of damp rocks, Northern New Jersey, &c.

155. *Amphoridium Mougeotii*.

Schimp. — *Zygodon Mougeotii*, *Bryol. Europ.* III. t. 206.

HAB. Wet rocks, with the preceding.

156. Orthotrichum Ludwigii.*Schwægr.* — *Bryol. Europ.* III. t. 225.

HAB. On trees and stone fences, not common.

157. Orthotrichum Hutchinsiae.*Hook. & Tayl.* — *Bryol. Europ.* III. t. 226.

HAB. On dry rocks, frequent; also occasionally on the roots of trees.

158. Orthotrichum crispum.*Hedw.* — *Bryol. Europ.* III. t. 228.

HAB. On trees and bushes, common.

159. Orthotrichum crispulum.'*Hornsch.* — *Bryol. Europ.* III. t. 228.HAB. On trees, particularly *Betula lutea*, rather scarce.**160. Orthotrichum anomalum.***Hedw.* — *Bryol. Europ.* III. t. 210.

HAB. On rocks, along rivers, Little Falls, &c., New York; also Canada, Macoun.

161. Orthotrichum Porteri.

Sulliv. & Lesqx. Mss. — Habitu et statura inter *O. Peckii* atque *O. anomalum* medium tenens, a primo capsula subexserta oblongo-elliptica, etc., ab altero capsula multo minore octo-striata, pedicello brevior, calyptra pilosior, etc. satis distinctum. — *Sulliv. Icon. Musc. Suppl.* 1, *ined.*

HAB. On rocks about Lancaster, Pennsylvania, *Prof. T. C. Porter.*

162. Orthotrichum Peckii.

Sulliv. & Lesqx. Mss. — Magnitudine foliis capsulæque obovatæ immersæ formam *O. cupulatum* referens, sed capsula constanter octo-striata, perist. dentibus punctulato-striolatis, calyptra eximie pilosa, etc. facile distinguitur. — *Sulliv. Icon. Musc. Suppl. 1, ined.*

HAB. On dry limestone rocks, Sussex County, New Jersey, and Orange County, New York; also on the Adirondack Mountains, *C. H. Peck.*

163. Orthotrichum Lescurii.

Austin. — *Sulliv. Icon. Musc. Suppl. 1, ined.*

Monoicum, pusillum, saturate viride; foliis longiusculis anguste lanceolatis acutis margine valde revolutis papillulosis valido-costatis; capsula immersa ovali 8-costata; perist. simplicis dentibus 16 sordide albescentibus pellucide punctulatis; calyptra parce pilosa dimidiam capsulæ ctegente; operculo depresso-convexo breviter apiculato.

Ab *O. cupulato* distinctum statura minore, foliis angustioribus laxius areolatis, capsula omnino immersa, dentibus perist. albescentibus punctulatis (haud flavescens oblique vermiculatis), etc.

HAB. On dry shaded rocks, Northern New Jersey and Southern New York. "On trees," Canada West, *Macoun.*

164. Orthotrichum obtusifolium.

Schrad. — *Bryol. Europ. III. t. 208.*

HAB. On trees along highways, rare, sterile.

✕ 165. Orthotrichum pumilum.

Swartz, Disp. Musc. Suec. p. 42, et 92, t. IV. f. 9.
— *O. fallax, Bryol. Europ.*

HAB. On shade-trees in the towns and villages of Central New Jersey.

✕ 165. O. fallax, Young, & Schimper, 1845, p. 10, t. 1, f. 10. 1845. 1. 34. Feb 1872.

166. Orthotrichum strangulatum.

Beauv. — *Sulliv. Icon. Musc.* p. 57, t. 36.

HAB. On trees, common.

167. Orthotrichum strangulatum.

Var. colore saturate viridi.

HAB. On apple-trees, Haverstraw, New York.

168. Orthotrichum sordidum.

Sulliv. & Lesqx. Mss. — Fusco-viride; caule 6–8-lineari; foliis confertis patentissimis ligulato-lanceolatis modice carinato-costatis sensim longius acutatis, marginibus reflexis; capsula immersa obovata in pedicellum brevissimum longe defluente late 8-striata; perist. duplicis dentibus bigeminatis superne in axi fenestratis, ciliis 8 æquilongis; calyptra pilosiuscula. — *Sulliv. Icon. Musc. Suppl.* 1, *ined.*

HAB. On trees, New Jersey and New York, very common; also about Cambridge, Massachusetts, *Lesqx., James.*

169. Orthotrichum Ohioense.

Sulliv. & Lesqx. Mss. — Monoicum, pusillum, flavescens-viride; caule 3–6-lineari; foliis laxiusculis e basi oblonga erecta elongato-lanceolatis costa carinatis patentissimis acutis margine revolutis; capsula oblongo-obovata immersa anguste 8-striata sicca, vacua campanulata pallide luteola; perist. dentibus bigeminatis 8 triangulari-lanceolatis crebre punctulatis, ciliis 8; calyptra pilosa. — *Sulliv. Icon. Musc. Suppl.* 1, *ined.* — *O. Canadense* *Sulliv. & Lesqx. Musc. Exsicc.* no. 181, *Ed.* 2, non *Br. & Sch.* in *Lond. Jour. Bot.* p. 67, 1843.

HAB. On trees, Ohio and adjacent States; common.

170. Orthotrichum citrinum.

Sulliv. & Lesqx. Mss. — Differt a præcedente persimili foliis angustioribus intense viridibus, capsula pulchre citrina tenuiore multo latius striata, perist. duplicis dentibus brevioribus, calyptra minus profunde plicata, etc. — *Sulliv. Icon. Musc. Suppl. 1, ined.*

HAB. On trees, New Jersey and New York, not rare.

171. Orthotrichum psilocarpum.

James. — *Sulliv. & Lesqx. Musc. Bor. Amer. Exsic. Ed. 2, no. 130.* — *Sulliv. Icon. Musc. Suppl. 1, ined.*

HAB. With No. 165; also in South Carolina, *Ravenel*.

172. Orthotrichum leiocarpum.

Bryol. Europ. III. t. 230.

HAB. On *Juniperus Virginiana*, Palisades, New Jersey, very rare. New York, *Peck*. Canada, *Macoun*.

173. Tetraphis pellucida.

Hedw. — *Bryol. Europ. II. t. 196.*

HAB. On rotten wood, common.

174. Encalypta ciliata.

Hedw. — *Bryol. Europ. III. t. 200.*

HAB. Wet rocks, near Haverstraw, New York. Near Albany, *Peck*. Canada, *Macoun*. New Hampshire, *James*.

175. Encalypta streptocarpa.

Hedw. — *Bryol. Europ. III. t. 204.*

HAB. On limestone rocks, Sussex County, New Jersey; also in Southern and Central New York. Easton, Pennsylvania, *James*. British America, *H. Gillman*; sterile.

176. Schistostega osmundacea.

⌘ *Web. & Mohr.* ⌘ — *Bryol. Europ.* III. t. 279.

HAB. On the roots of prostrated trees and in crevices of rocks, near Sandlake, New York, *Peck.* White Mountains, New Hampshire, *James.* Lake Superior, *H. Gillman.*

177. Tetraplodon australis.

Sulliv. & Lesqx. — *Sulliv. Icon. Musc.* p. 97, t. 58.

HAB. On the excrement of herbivorous animals in the cedar swamps of Southern New Jersey, frequent.

178. Aphanoregma serratum.

(*Hook. & Wils.*) — *Sulliv. Icon. Musc.* p. 95, t. 57.

HAB. On damp ground, common.

179. Physcomitrium immersum.

Sulliv. Icon. Musc. p. 93, t. 56.

HAB. Low banks of the Delaware, at Camden and Philadelphia; also near Albany, *Peck.*

180. Physcomitrium pyriforme.

Brid. — *Bryol. Europ.* III. t. 299.

HAB. On damp ground, frequent.

181. Funaria hygrometrica.

Hedw. — *Bryol. Europ.* III. t. 305.

HAB. On alkaline earth and old walls, frequent. (Very common about lime-kilns.)

182. Funaria hygrometrica.

Var. patula. Saturate vel nigro-viridis; caule plerumque longiori dense caespitoso valde radiculoso; foliis patulis, costa plerumque excurrente.

HAB. Chiefly on damp walls, New Jersey, &c.

183. Funaria flavicans.

Michx. — *Sulliv. Icon. Musc. p.* 87, *t.* 53.

HAB. In pastures, on small patches of ground where the grass is killed by urine.

184. Bryum pyriforme.

(*Linn.*) *Hedw.* — *Bryol. Europ. IV. t.* 355.

HAB. On old walls and moist calcareous earth; also occasionally on rotten wood in swamps.

185. Bryum nutans.

Schreb. — *Bryol. Europ. IV. t.* 343.

HAB. On shaded ground, common.

186. Bryum nutans, var.

HAB. On exposed rocks, upon mountain-tops, ~~at~~ New Jersey and New York.

187. Bryum crudum.

Schreb. — *Bryol. Europ. IV. t.* 348.

HAB. Banks of ravines, not rare; sterile in New Jersey.

188. Bryum annotinum.

Schreb. — *Bryol. Europ. IV. t.* 352.

HAB. Wet rocks and banks, scarce; rarely fertile.

189. Bryum albicans.

(*Wahlenb.*) — *Bryum Wahlenbergii, Schwægr.* —
Bryol. Europ. IV. t. 354.

HAB. On wet rocks and banks; common, but rare in fruit.

190. Bryum Lescurianum.

Sulliv. Icon. Musc. p. 81, t. 50.

HAB. On banks along roadsides, &c.; Palisades, Northern New Jersey, and Southern New York.

191. Bryum uliginosum.

(*Bruch.*).—*Bryol. Europ. IV. t. 335.*

HAB. Wet rocks near Haverstraw, New York; also near Fort Edward (*Howe*).

192. Bryum cyclophyllum.

(*Schwægr.*).—*Bryol. Europ. IV. t. 370.*

HAB. About the roots of trees subject to inundation, in a swamp near Closter. New Jersey, rare; sterile.

193. Bryum intermedium.

Brid. — *Bryol. Europ. IV. t. 356.*

HAB. Old walls, stumps, crevices of rocks, and on calcareous earth, frequent.

194. Bryum bimum.

Schreb. — *Bryol. Europ. IV. t. 363.*

HAB. Wet places, common.

195. Bryum bimum, var.

HAB. Wet rocks, Palisades, New Jersey.

196. Bryum cernuum.

Hedw. — *Bryol. Europ. IV. t. 332.*

HAB. About the roots of trees in open woods, in the vicinity of Closter, New Jersey.

197. Bryum cæspiticiu.*Linn.* — *Bryol. Europ.* IV. t. 374, 375.

HAB. On the ground, old walls, &c., very common.

198. Bryum argenteu.*Linn.* — *Bryol. Europ.* IV. t. 384.

HAB. On the ground, old roofs, &c., common.

199. Bryum capillare.*Linn.* — *Bryol. Europ.* IV. t. 368.

HAB. Shaded banks, rocks, &c.; common, but sterile in New Jersey.

200. Bryum pseudo-triquetrum.*Schwægr.* — *Bryol. Europ.* IV. t. 308. 364

HAB. Moist rocks; very common in Northern New Jersey and Southern New York.

201. Bryum pseudo-triquetrum, var.

HAB. Wet rocks, Palisades, New Jersey, rare.

202. Bryum Duvalii*Voit.* — *Bryol. Europ.* IV. t. 307. 371HAB. On slate rocks along streams, Herkimer County, New York.
Canada, *Macoun.***203. Bryum roseu.***Schreb.* — *Bryol. Europ.* IV. t. 365.

HAB. On decayed wood, on the ground about the roots of trees and on moist rocks, frequent.

204. Mnium cuspidatum.*Hedw.* — *Bryol. Europ.* IV. t. 396.

HAB. On damp shaded ground, rocks, &c., common.

205. Mnium affine.*Bland.* — *Bryol. Europ.* IV. t. 397.

HAB. Swamps and wet rocks, common.

206. Mnium medium?*Bryol. Europ.* IV. t. 398. Flores bisexuales, cæteroque in a præcedente haud diversum.HAB. Wet rocks, Little Falls, New Jersey; also near Fort Edward, New York (*Howe*).**207. Mnium rostratum.***Schwægr.* — *Bryol. Europ.* IV. t. 395.

HAB. Wet rocks, Palisades and Northern New Jersey, and Southern New York, rare.

208. Mnium lycopodioides.*Hook.* — *Bryol. Europ.* IV. t. 392.

HAB. On shaded rocks, Northern New Jersey; also on decayed logs in Herkimer County, New York.

209. Mnium spinulosum.*Bryol. Europ.* IV. t. 394.

HAB. On rocks in a ravine at Godwinville, New Jersey; also on wooded banks, Rockland and Herkimer Counties, New York, &c.

210. Mnium serratum.*Brid.* — *Bryol. Europ.* IV. t. 391.

HAB. Shaded banks and crevices of rocks, Palisades and Northern New Jersey, scarce.

211. Mnium hornum.

Hedw. — *Bryol. Europ.* IV. t. 390.

HAB. A. in cedar swamps near New Durham, New Jersey ; B. rocky or sandy banks of streams, New Jersey and Southern New York.

212. Mnium punctatum.

Hedw. — *Bryol. Europ.* IV. t. 387.

HAB. Swamps, common.

213. Mnium punctatum, var.

HAB. Banks of rivulets, common.

214. Mnium cinclidioides (pl. fem.).

Blytt. — *Bryol. Europ.* IV. t. 402.

HAB. Swamps and wet woods, Palisades (frequent), and Northern New Jersey, and Southern New York ; sterile.

215. Mnium cinclidioides, pl. masc.

HAB. Same as the preceding.

216. Mnium stellare.

Hedw. — *Bryol. Europ.* IV. t. 401.

HAB. On shaded ~~cliffs~~ cliffs and banks, and about the roots of trees in swamps, rather frequent, but rarely fertile.

217. Meesia tristicha.

(*Funk.*). — *Bryol. Europ.* IV. t. 311.

HAB. Wet meadows about Closter, New Jersey.

218. Aulacomnion palustre.

(Linn.) Schwægr. — *Bryol. Europ.* IV. t. 405.

HAB. Swamps and low grounds, common.

219. Aulacomnion palustre.

Var. rupestre. Foliis apice sæpe valde obtusis atque cucucullatis.

HAB. Moist rocks, Palisades, near Closter, New Jersey.

220. Aulacomnion heterostichum.

Bryol. Europ. IV. t. 403.

HAB. On banks and about the roots of trees in woods; common in New Jersey.

221. Bartramia pomiformis.

Hedw. — *Bryol. Europ.* IV. t. 319.

HAB. Same as the preceding, very common.

222. Bartramia Oederi.

Swartz.-Bryol. Europ. IV. t. 318.

HAB. Banks of ravines, Northern New Jersey to Canada.

223. Bartramia fontana.

Brid. — *Bryol. Europ.* IV. t. 324.

HAB. Banks of rivulets, and in springy places, common.

224. Bartramia fontana, var.

HAB. Wet sloping rocks, near Suffern, New York.

225. Bartramia Marchica.

Brid. — *Bryol. Europ.* IV. t. 323.

HAB. Wet rocks and banks, not frequent.

226. Bartramia Marchica, var.:

HAB. Rocky open places, near Haverstraw, New York.

227. Timmia megapolitana.

Hedw. — *Bryol. Europ.* IV. t. 407.

HAB. Banks of ravines, Northern New Jersey and New York.

228. Atrichum angustatum.

(*Brid.*) — *Bryol. Europ.* IV. t. 411.

HAB. On the ground in open woods and on banks, common.

229. Atrichum angustatum, pl. masc.

HAB. Same as the preceding.

230. Atrichum undulatum.

Beauv. — *Bryol. Europ.* IV. t. 410.

HAB. Shaded banks, common.

231. Atrichum crispum.

James. — *Sulliv. Icon. Musc.* p. 73, t. 46.

HAB. Sandy banks of streams, near Camden (*James*), and Toms River, New Jersey.

232. Pogonatum brevicaule.

Brid. — *Sulliv. Icon. Musc.* p. 75, t. 47.

HAB. On banks, roadsides, &c., common.

233. Pogonatum brevicaule, pl. masc.

HAB. Same as the preceding.

234. Pogonatum brachyphyllum.*Beauv. — Sulliv. Icon. Musc. p. 77, t. 48.*

HAB. On sandy loam, along roadsides, near Toms River, New Jersey.

235. Polytrichum commune.*Linn. — Bryol. Europ. IV. t. 425.*

HAB. On the ground, in woods and old sterile fields, very common.

236. Polytrichum formosum.*Linn. — Bryol. Europ. IV. t. 425.*

HAB. About the roots of trees in damp woods, and on flat shaded rocks, common.

237. Polytrichum juniperinum.*Hedw. — Bryol. Europ. IV. t. 423.*

HAB. On the ground, in dry exposed places, common.

238. Polytrichum strictum.*Menzies. — Schimp. Synop. Musc. p. 448. — Bryol. Europ. IV. t. 424 (sub *P. juniper. vars.*).*

HAB. Sandy barrens of New Jersey, common.

239. Polytrichum piliferum.*Schreb. — Bryol. Europ. IV. t. 422.*

HAB. In old fields (fertile) and on flat rocks (sterile), near Closter, New Jersey.

240. Diphyscium foliosum.

Web. & Mohr. — *Bryol. Europ.* IV. t. 428 et VI. t. 641.

HAB. On banks in woods and rocky ravines, common.

241. Diphyscium foliosum, pl. masc.

HAB. Crevices of wet rocks.

242. Buxbaumia aphylla.

Haller. — *Bryol. Europ.* IV. t. 427 et VI. t. 641.

• HAB. On the ground in open woods, rare.

243. Fontinalis antipyretica.

Linn. — Var. *gigantea*, *Sulliv. Icon. Musc.* p. 106, t. 66.

HAB. In rivulets, common ; sterile.

244. Fontinalis Novæ Angliæ.

Sulliv. Icon. Musc. p. 101, t. 65.

HAB. In springs, and in rivulets in swampy places, common ; sterile.

245. Fontinalis biformis.

Sulliv. Icon. Musc. p. 99, t. 59, 60.

HAB. Woodland rivulets, Columbus, Ohio, *Sullivant*.

246. Fontinalis Lescurii.

Sulliv. Icon. Musc. p. 101, t. 61.

HAB. Ponds and sluggish streams, Southern New Jersey ; sterile.

247. Fontinalis Lescurii, var.

HAB. In rocky rivulets, common.

248. Fontinalis Lescurii.

Var.? cymbifolia. Foliis stricte patentibus magis concavis : forsan species propria.

HAB. Ponds of Northern New Jersey ; sterile.

249. Fontinalis Sullivanti.

Lindberg in Finska Vet. Societ. Förhandl. XII, 2, 1869, p. 77. — Fontinalis Lescurii var. gracilescens Sulliv. Icon. Musc. p. 101.

Inter *F. Lescurii* et *F. disticham* intermedia, ab illo recedit gracilitate, foliis remotis angustioribus lurido-pallidis, cellulis angularibus maximis, perichætiâlibus apice haud undulatis, capsula cylindrica, operculo longiore, etc. : ab hoc statura majore, caule multo flexiliore, affatim ramulosa, foliis rigidioribus, capsulis numerosissimis brevioribus latioribus, etc. *Sulliv. Icon. Musc. Suppl. 1, ined.*

HAB. Stagnant pools in woods, about Closter, New Jersey, *Austin*.

250. Fontinalis filiformis.

Sulliv. & Lesqx. — Fontinalis disticha var. tenuior, Sulliv. Icon. Musc. p. 103, t. 64.

Hanc speciem hucusque cum *F. disticha* confusam, habitus tenuior, ramificatio copiosissima, caulis ramulique graciliores debiliores, folia convoluta angustiora rigidiora laxius areolata, capsulæ maxime numerosæ magis elongatæ, perist. dentes lanceolato-subulati vix lacunosi crebrius articulati, etc. satis superque distinguunt.

HAB. Southern Kentucky, *Lesquereux*.

251. Fontinalis Dalecarlica.

Bryol. Europ. V. t. 431.

HAB. Rocky rivulets, common.

251^b. Fontinalis Neo-Mexicana.

Sulliv. & Lesqx. Mss. — “Species distinctissima *F. antipyreticæ* habitum æmulans, distat tamen statura paulo minore, foliis maxime confertis rigidioribus obtuse carinatis plus minus subcomplicatis multo angustius lineari-areolatis, cellulis basis subauriculatæ decurrentis ampliatis rufulis oblongis; perist. dentibus 18–20 (non 25–30) articulatis; perichætialibus breviter cuspidatis raro præmorsis ad basin (ut in reliquis foliis) colore rubro aurantiaco tinctis, etc.

In *F. Dalecarlica* specie haud dissimili habitus gracilior, ramificatio copiosior, folia concava, perist. dentes lacunosi paucius articulati, etc. reperiuntur.

Nomen *Neo-Mexicana* primo nostræ plantæ impositum postea incaute deletum nunc (fructu tandem noto) restituimus.”

Fontinalis Neo-Mexicana Sulliv. & Lesqx. Musc. Exsicc. n. 224^b (1856). — *Sulliv. Icon. Musc. Suppl. 1, ined.* — *F. antipyretica*, var. *S. & L. Musc. Exsicc. ed. 2, no. 334 (1865).* — *F. Mercediana, Lesqx. in Mem. Califor. Acad. Sci. 1, p. 28 (1867).*

HAB. Mountain rivulets, New Mexico, *Wright*; Rocky Mountains, *Hall*.

252. Dichelyma capillaceum.

Dill. — Bryol. Europ. V. t. 436.

HAB. In stagnant pools in woods, adhering to roots of trees and sticks, common.

253. Cryphæa glomerata.

Schimp. — Sulliv. Icon. Musc. p. 107, t. 67.

HAB. On Red Cedars, Palisades, New Jersey, rare; common in the South.

254. Leptodon trichomitrium.

Mohr. — *Sulliv. Icon. Musc.* p. 112, t. 71.

HAB. On trees and rocks, common.

255. Neckera pennata.

Hedw. — *Bryol. Europ.* V. t. 440.

HAB. On trees and rocks, common.

256. Omalia trichomannoides.

(*Schreb.*) — *Bryol. Europ.* V. t. 446. — O. Jamesii,
Schimp. Synop. Musc. Europ. annot. p. 473.

HAB. On rocks in damp ravines, Central New York, rare; more common on the higher mountains.

257. Omalia gracilis.

James in Peck's Catal. N. York plants. (1869.)

Differt ab *O. Sendtneriana*, cui haud dissimilis, statura minore graciliore, ramificatione copiosore, ramulis flescentibus flexilibus subjulaceo-foliatis, foliis rameis complanatis duplo brevioribus atque angustioribus minus obtusis, cellulis paullum majoribus, perigonialibus ovatis acute acuminatis, etc. — Fl. fœm. et fr. ignotis.

HAB. Under overhanging rocks, New Jersey; Adirondack and Catskill Mountains, New York, *James, Peck.*

258. Leucodon julaceus.

(*Hedw.*) *Schwægr.* — *Sulliv. Icon. Musc.* p. 110, t. 69.

HAB. On trees, common.

259. Leucodon julaceus, pl. masc.

HAB. Same as the preceding.

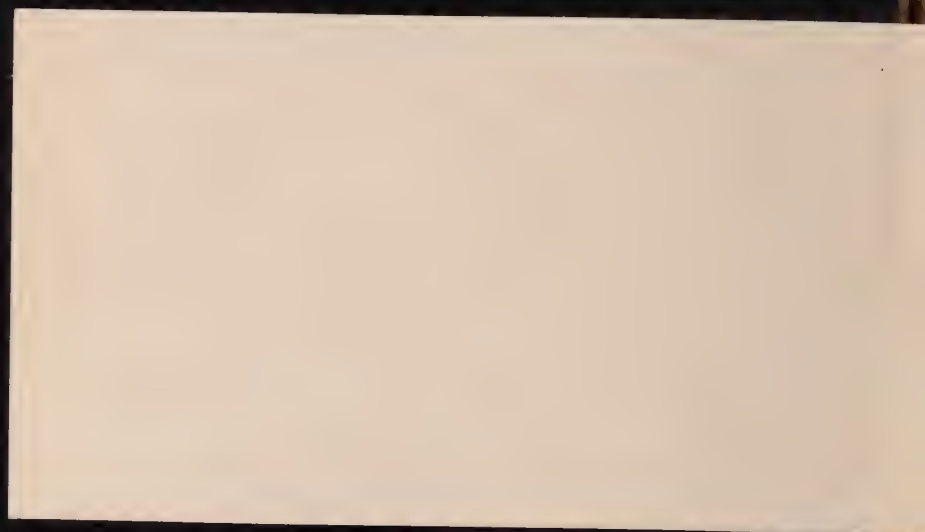
257. *Omalia gracilis*.

BOTANICAL
GARDEN

James in Peck's Catal. N. Y. plants. (1869.)

Differt ab *O. Sendtneriana*, cui haud dissimilis, statura minore graciliore, ramificatione copiosiore, ramulis flescentibus flexilibus subulaceo-foliatis, foliis ram-eis complanatis duplo brevioribus atque angustioribus minus obtusis, cellulis paulum majoribus, inflorescentia (solum in planta masculina Nov-Cæsarensi observata) dioica, foliis perigonalibus (paucis) ovatis longinsecul acute acuminatis cellulis longioribus sub-marginatis, etc.—Perigoniis paucis (2-4) magis parce paraphysatis; fl. fœm. et fructu ignotis.

HAB. Under overhanging rocks, New Jersey; also Adirondack and Catskill Mountains, New York, *James Peck*.



260. Leucodon julaceus.

Forma stolonifera.

HAB. On Red Cedars, Palisades, New Jersey.

261. Leucodon brachypus.Brid. — *Sulliv. Icon. Musc. p. 111, t. 70.*

HAB. On trees and rocks, chiefly in hilly districts.

262. Thelia hirtella.(Hedw.) — *Sulliv. Icon. Musc. p. 128, t. 80.*

HAB. On the trunks of trees near the ground, common; rarely on rocks.

LIBRARY
NEW YORK**263. Thelia asprella.**(Schimp.) — *Sulliv. Icon. Musc. p. 129, t. 81.*

HAB. On the roots of trees, old stumps, and on stones in open woods, common.

264. Thelia Lescurii.*Sulliv. Icon. Musc. p. 130, t. 82.*

HAB. A, on flat rocks, Palisades; B, on white sand, about the base of stunted oaks, in Southern New Jersey.

265. Myurella Careyana.*Sulliv. Icon. Musc. p. 131, t. 83.*

HAB. Banks of ravines, about Hohokus and in the mountains of New Jersey, &c.; rare in fruit.

266. Myurella julacea.(Villars). — *Bryol. Europ. V. t. 560.*

HAB. On rocky ground and in fissures of rocks, near Belleville, Canada West, Macoun.

267. *Leskea denticulata* (pl. fœm.).*Sulliv. Icon. Musc. p. 125, t. 78.*

HAB. On dry rocks and roots of trees, not rare, but always sterile in New York and New Jersey.

268. *Leskea Austini*.*Sulliv. Icon. Musc. Suppl. 1, ined.*

Monoica, parvula, intricato-cæspitosa, triste-viridis; caule irregulariter ramoso; foliis humidis patulis vel subsquarrosis ovatis longe tenui-acuminatis acumine subintegris ultra medium costatis papillois, cellulis crassiusculis marginis inferioris quadratis seriatis, mediis et apicalibus ellipticis elongatis; capsula erecta oblongo-ovali microstoma exannulata; pedicello 5–10 lineari; peristomio duplici, externo e dentibus 16 triangulari-lanceolatis demisse insertis 16–20-articulatis utraque facie planis papillulosis opacis, interno e membrana brunneo-lutea annuli-formi capsulae orificium paulo superante; operculo brevi-conico; calyptra. . . .

Species ambigua hic ad *Leskeam* illic ad *Habrodontem* accedens.

HAB. On stone fences, Sussex County, New Jersey, *Austin*; on trunks of trees, Fulton County, Illinois, *Wolf*.

269. *Leskea polycarpa*.*Ehrh. — Bryol. Europ. V. t. 469. 470*

HAB. On old roofs and shade-trees in towns, and on shaded old stone fences along highways; also on the roots of trees within the reach of floods.

270. *Leskea obscura*.*Hedw. — Sulliv. Icon. Musc. p. 123, t. 77.*

HAB. On the roots of trees and on stones within the reach of floods, in low grounds, common.

271. Leskea nervosa.

(Schwægr.) Myrin. — Bryol. Europ. V. t. 472.

HAB. On the roots of trees in exposed and elevated situations, Herkimer County, New York; sterile.

272. Anomodon rostratus.

(Hedw.) Schimp. — Leskea rostrata, Hedw. — Bryol. Europ. V. t. 473. *

HAB. About the roots of trees in woods, forming dense cushions.

273. Anomodon tristis.

(Cesati) Hook. & Tayl. — Hypnum triste, C. Mull. Synop. Musc. p. 478. — Leskea fragilis, Hook. & Wils. in Drumm. Musc. Amer. Coll. 2, no. 101.

HAB. On trees and rocks, common; always sterile.

274. Anomodon attenuatus.

Hartm. — Bryol. Europ. V. t. 475.

HAB. About the roots of trees and on rocks, common.

275. Anomodon obtusifolius.

Bryol. Europ. — Sulliv. Icon. Musc. p. 119, t. 74.

HAB. On trunks of trees and rocks, common.

276. Anomodon obtusifolius.

Var. fragilis.

HAB. On trees about Closter, New Jersey.

277. Anomodon apiculatus.

Bryol. Europ. — Sulliv. Icon. Musc. p. 120, t. 75.

HAB. On trees in swamps, Herkimer County, New York; also Canada, Macoun, Gillman.

278. Anomodon viticulosus.

(Linn.) Hook. & Tayl. — *Bryol. Europ.* V. t. 476.

HAB. On limestone rocks, Sussex County, New Jersey; also Helderberg Mountains and Little Falls, New York; sterile.

279. Anacamptodon splachnoides.

Brid. — *Bryol. Europ.* V. t. 453.

HAB. About rotten knots on trees, rare.

280. Pterigynandrum filiforme.

Hedw. — *Bryol. Europ.* V. t. 460.

HAB. On rocks and roots of trees, chiefly in mountainous localities, New Jersey (Palisades) to Canada.

281. Platygyrium repens.

Bryol. Europ. V. t. 458.

HAB. On the roots of the Chestnut and Beech, but more commonly on dead wood, frequent.

282. Cyndrothecium seductrix.

(Hedw.) — *Bryol. Europ.* — *Sulliv. Icon. Musc.* p. 145, t. 92.

HAB. On roots of trees, stones, old logs, &c.; also on moist or wet ground, very common.

283. Cyndrothecium seductrix, var.

HAB. On dry rocks, old roofs, &c.

284. Cyndrothecium cladorrhizans.

(Hedw.) — *Bryol. Europ.* — *Sulliv. Icon. Musc.* p. 143, t. 91.

HAB. On old logs, roots of trees, &c., Palisades and Northern New Jersey to Canada.

285. *Cylindrothecium brevisetum*.

(Wils.) — *Bryol. Europ.* — *Sulliv. Icon. Musc. p.*
150, *t.* 96.

HAB. On leaning trunks of trees, old logs and stone fences; also on rocks, associated with *Dicranum scoparium* var. *rupestre* (No. 90); Palisades and Northern New Jersey, &c.

286. *Climacium dendroides*.

(Dill.) *Web. et Mohr.* — *Bryol. Europ. V. t.* 437.

HAB. In swamps about Closter and Toms River, New Jersey; near Schoharie, New York (*Miss R. Waterbury*); New Brunswick (*Fowler*).

287. *Climacium Americanum*.

Brid. — *Sulliv. Icon. Musc. p.* 151, *t.* 97.

HAB. On the ground about the roots of trees in swamps, and on moist rocks, very common.

288. *Climacium Americanum*, var.

HAB. Low banks of streams in swampy places.

289. *Climacium Americanum*.

Var. *fluitans*.

HAB. In stagnant pools in woods, near Closter, New Jersey.

290. *Pylaisæa subdenticulata*.

Schimp. — *Sulliv. Icon. Musc. p.* 137, *t.* 87.

HAB. On the base of White Oaks, about Closter, New Jersey. Ohio, *Sullivant*.

291. *Pylaisæa intricata*.

(*Hedw.*) *Schimp.* — *Sulliv. Icon. Musc. p.* 139, *t.* 88.

HAB. On trees, very common.

292. *Pylaisæa intricata*, var.

HAB. Old roofs and stone fences along dusty highways, particularly in limestone regions, Northern New Jersey, &c.

293. *Pylaisæa velutina*.

Bryol. Europ. Mem. — *Sulliv. Icon. Musc. p.* 140, *t.* 89.

HAB. On trees (chiefly young Elms), in swamps; also on old logs, &c., in mountainous regions, New Jersey to Canada.

294. *Pylaisæa velutina*, var.

HAB. On Red Cedars, New Jersey.

295. *Homalothecium subcapillatum*.

(*Hedw.*) — *Bryol. Europ.* — *Sulliv. Icon. Musc. p.* 141, *t.* 90.

HAB. On trees and old roofs, common.

296. *Thuidium pygmæum*.

Bryol. Europ. Mem. — *Sulliv. Icon. Musc. p.* 153, *t.* 98.

HAB. On stones along rivulets, Northern New Jersey and Southern New York to Ohio, rare.

297. *Thuidium minutulum*.

(*Hedw.*) — *Bryol. Europ. V. t.* 481.

HAB. On decayed wood in swamps, common.

298. *Thuidium gracile*.

Bruch & Schimp. — *Sulliv. Icon. Musc. p.* 156, *t.* 100.

HAB. On decaying logs in damp woods, Western New York, Ohio, and Canada.

299. Thuidium gracile.

Var. *Lancastriense*, *Sulliv. & Lesqx. Musc. Bor. Amer. Exsic. ed. 2, no. 411.* — Forsan species propria.

HAB. On dry sterile ground, in open woods, common (in New Jersey).

300. Thuidium scitum.

(*Beauv.*) — *Sulliv. Icon. Musc. p. 155, t. 99.*

HAB. On the base of a tree near Closter, New Jersey. (Matures in October and November.)

301. Thuidium scitum.

Var. *æstivalis*, capsula subhorizontali obovata pallida, etc.: fruct. matur. in Julio.

HAB. On the roots of trees, New Jersey and New York, frequent.

302. Thuidium tamariscinum.

(*Hedw.*) — *Bryol. Europ. V. t. 482, 483.*

HAB. On the roots of trees, old logs, &c., very common.

303. Thuidium delicatulum.

(*Linn.*) — *Bryol. Europ. V. t. 484.*

HAB. On shaded rocks and banks, common.

304. Thuidium abietinum.

(*Linn.*) — *Bryol. Europ. V. t. 485.*

HAB. On dry limestone ridges, Sussex County, New Jersey, very abundant.

305. Thuidium Blandowii.

Web. et Mohr. — *Bryol. Europ. V. t. 486.*

HAB. Peat-bogs and swamps, Western New York, *Clinton*; Canada, *Macoun.*

306. Elodium paludosum.

Sulliv. Icon. Musc. p. 157, t. 101.

Foliis sæpe papillois: an Thuidii species?

HAB. Swamps and low grounds, common.

307. Camptothecium nitens.

Schreb. — Bryol. Europ. VI. t. 622.

HAB. In peat-bogs, near Sparta, New Jersey; also near Fort Edward, New York, *Howe*.

308. Camptothecium nitens, var.

Foliis secundis subfalcatis.

HAB. New Baltimore, Saratoga County, New York, *Dr. E. C. Howe*.

309. Brachythecium lætum.

(*Brid.*) — *Bryol. Europ. t. 554; Sulliv. Icon. Musc. p. 185, t. 115.*

HAB. On the ground, old logs, roots of trees and rocks, common.

310. Brachythecium acuminatum.

(*Beauv.*) — *Sulliv. Icon. Musc. p. 187, t. 116.*

HAB. On the roots of trees and on old logs in woods.

311. Brachythecium acuminatum.

Var. setosum. — *Leskea setosa, Hedw. Spec. Musc. p. 226, t. 57.*

HAB. About roots of trees and on stone fences along dusty highways.

312. Brachythecium salebrosum.

(*Hoffm.*) — *Bryol. Europ. VI. t. 549.*

HAB. On the ground, old wood, &c., common.

313. *Brachythecium salebrosum*, var.

HAB. On the roots of trees, old roofs, &c.

314. *Brachythecium campestre*.

(*Bruch*).—*Bryol. Europ.* VI. t. 545.

HAB. On the ground in woods, Closter and Northern New Jersey, and Southern New York.

315. *Brachythecium campestre*.

Var. *Pedicello fere lævi*.

HAB. On the ground under shrubbery, in yards and gardens, Closter, New Jersey.

316. *Brachythecium acutum*.

Mitten in Jour. Linn. Soc. Lond. p. 33, t. 6 (1864).

—*Sulliv. Icon. Musc. Suppl.* 1, ined.

HAB. On the ground in swamps, near Closter, New Jersey. Also British Columbia, *Lyall*. Boston, Massachusetts, *B. D. Greene*. Columbus, Ohio, *Sullivant*, *Lesqueureux*. Sandlake, New York, *Pick.*

317. *Brachythecium rutabulum*.

(*Linn.*) — *Bryol. Europ.* VI. t. 543.

HAB. On wet shaded ground, dripping rocks, and old wells, common.

318. *Brachythecium rutabulum*, var.?

HAB. On wet rocks; sterile.

319. *Brachythecium rivulare*.

(*Bruch*).—*Bryol. Europ.* VI. t. 546.

HAB. On rocks in rivulets, Palisades, New Jersey, &c.; common.

320. *Brachythecium rivulare*, var. 1.

HAB. Banks of rivulets, with the preceding.

321. *Brachythecium rivulare*, var. 2.

Foliis secundis brevioribus sæpè bicostatis.

HAB. On rocks in rivulets, Northern New Jersey ; sterile.

322. *Brachythecium rivulare*, var. 3.

HAB. On wet rocks, sterile.

323. *Brachythecium Starkii*.

(*Brid.*) — *Bryol. Europ.* VI. t. 541.

HAB. On old logs, in the Greenwood Mountains and at the Delaware Water Gap, New Jersey ; also on Sams Point Mountain, New York ; rare.

324. *Brachythecium velutinum*.

(*Linn.*) — *Bryol. Europ.* VI. t. 538.

HAB. On the ground in woods, not frequent.

325. *Brachythecium plumosum*.

(*Linn.*) — *Bryol. Europ.* VI. t. 537.

HAB. On rocks in rivulets and damp ravines, very common.

326. *Brachythecium plumosum*, var. 1.*

HAB. On exposed rocks along rivulets, Palisades, New Jersey.

327. *Brachythecium plumosum*, var. 2.

HAB. On shaded dry rocks and stones and on the ground in woods ; common.

328. Brachythecium plumosum, var. 3.

Hypnum populeum, *Hedw.* — *Bryol. Europ.* VI. t. 535, 536.

HAB. Same as the preceding, into which it plainly passes.

329. Brachythecium Novæ Angliæ.

Sulliv. & Lesqx. — *Sulliv. Icon. Musc.* p. 191, t. 118.

“*Eurhynchium Novæ-Angliæ, foliis parce papillois, acumine interdum semel torto.*” (Austin, Mss.)

HAB. On the ground in swamps and wet woods; common.

330. Brachythecium Novæ Angliæ.

Var. *rupestre.*

HAB. On irrigated rocks in mountainous regions, New Jersey and New York.

331. Eurhynchium ? Boscii.

(*Schwægr.*) — *Sulliv. Icon. Musc.* p. 167, t. 106.

HAB. On shaded banks, common in New Jersey.

332. Eurhynchium strigosum.

(*Hoffm.*) — *Bryol. Europ.* V. t. 519.

HAB. On banks in woods, common.

333. Eurhynchium diversifolium.

(*Schimp.*) — *Bryol. Europ.* V. t. 520.

HAB. On shaded banks, common. — Not clearly distinct from the preceding.

334. Eurhynchium Sullivantii.

(*R. Spruce*). — *Sulliv. Icon. Musc. p.* 165, *t.* 105.

HAB. On banks of deep shaded ravines, common, but rarely fertile.

335. Eurhynchium hians.

(*Hedw.*) — *Sulliv. Icon. Musc. p.* 163, *t.* 104.

HAB. On naked ground in woods; also frequent on partly inundated sticks and roots of trees, in the low swamps near Closter, New Jersey.

336. Eurhynchium piliferum.

(*Schreb.*) — *Bryol. Europ. V. t.* 531.

HAB. On the ground about the roots of trees, and on old logs, in swampy places, Ohio to New Jersey and New England; rare.

337. Thamnum Alleghaniense.

(*C. Mull.*) — *Sulliv. Icon. Musc. p.* 161, *t.* 103.

HAB. On rocks along mountain rivulets constantly moistened by spray (fertile); and in deep crevices of rocks (sterile): Palisades, &c.; not rare.

338. Rhynchostegium demissum.

(*Wils.*) — *Bryol. Europ. V. t.* 507.

HAB. On damp shaded rocks, in mountainous regions, Palisades (very rare) and Northern New Jersey and New York.

339. Rhynchostegium microcarpum.

(*C. Mull.*) — Var. *anisocarpon*, *Sulliv. Icon. Musc. p.* 175.

HAB. On stones in damp woods, about Closter, New Jersey, frequent.

340. Rhynchostegium recurvans.

(Schwægr.) — *Sulliv. Icon. Musc. p. 177, t. 111.*

HAB. On decayed wood, &c., in swamps and woods, common.

341. Rhynchostegium recurvans, var.

HAB. In cedar swamps, Northern New Jersey and New York.

342. Rhynchostegium cylindrocarpum.

(C. Mull.) — *Sulliv. Icon. Musc. p. 173, t. 109.*

HAB. On old logs, and trunks of trees near the ground, rare in fruit.

343. Rhynchostegium cylindrocarpum, pl. masc.

HAB. Same as the preceding.

344. Rhynchostegium deplanatum.

(Schimp.) — *Sulliv. Icon. Musc. p. 171, t. 108.*

HAB. On the ground under rocks in moist ravines, Palisades, &c. ; also on damp clayey soil in woods, New York ; rarely fertile.

345. Rhynchostegium geophilum.

Austin. — *Sulliv. Icon. Musc. Suppl. 1, ined.* — *Hypnum depressum, James in Proceed. Amer. Phil. Soc. 1855 ; Sulliv. et Lesqx. Musc. Ersicc. ed. 2, n. 437.* — *Hypnum geophilum, Aust. Mss.*

A *Rhynchostegio depresso* simillimo distinctum habitu cœspite laxiore tenuiore nitidiore ; caule ramis ramulisque latoribus magis elongatis ; foliis subcomplanatis distichis remotioribus valde patentibus fere horizontalibus oblongo-lanceolatis sensim longius acutatis extremo apice obtusiusculis (haud ovali-oblongis brevius acuminatis) distinctius serratis bicostulatisque, cellulis longioribus angustioribus flexuosis,

illis ad basin vix ampliatis laud hyalinis; capsula minore basi magis abrupta, membrana tenuiore; annulo nullo vel indistincto, etc.

HAB. On clayey, shaded ground. New Jersey, *Austin*; Pennsylvania, *James*; New York, *Peck*.

346. *Rhynchostegium serrulatum*.

(*Hedw.*) — *Sulliv. Icon. Musc. p.* 169, *t.* 107.

HAB. On the ground, roots of trees, &c., in woods and swamps, common.

347. *Rhynchostegium rusciforme*.

(*Weisg.*) — *Bryol. Europ. V. t.* 515.

HAB. On rocks in rapid streams, common.

348. *Plagiothecium elegans*.

(*Hook.*) *Musc. Exot. t.* 9. — *Sulliv. Icon. Musc. Suppl.* 1, *ined.*

HAB. Crevices of shaded rocks, Northern New Jersey and Southern New York; sterile.

349. *Plagiothecium elegans*.

Var. *terrestre*, *Lindbg.* — *Plagiothecium Schimperii, Milde in Raben. Bryotheca Europ. no.* 588 (e *Lindb.*).

HAB. On the ground, in a ravine near Pascack, New Jersey; sterile.

350. *Plagiothecium elegans*.

Var. *gracilens*. — An sp. nov.?

HAB. Crevices of rocks, near Suffern, New York; sterile.

351. Plagiothecium Mullerianum.

Schimp. Synop. Musc. Europ. p. 584; Sulliv. Icon. Musc. Suppl. 1, ined.

HAB. Rocky ravines, New Jersey and New York. New England, *James, Oakes.* Ohio, *Lesquereux.*

352. Plagiothecium Passaicense, Aust.

Pl. pulchello in adspectu simillimum sed statura minori et floribus dioicis distat; fructu ignotum.

HAB. Rocky banks, Passaic, Morris and Bergen counties, New Jersey; very rare.

353. Plagiothecium latebricola.

(*Wils.*) — *Bryol. Europ. V. t. 494.*

HAB. About the roots of old stumps, &c., in swamps, near Closter, New Jersey; also near Slate Hill, New York.

354. Plagiothecium pulchellum.

(*Dicks.*) — *Bryol. Europ. V. t. 497.*

HAB. On the ground about the roots of trees and old stumps, and on banks, New York, *Peck*; Canada, *Macoun.*

355. Plagiothecium pulchellum.

Var. nitidulum. — *Pl. nitidulum* (*Wahl.*) *Bryol. Europ. V. t. 498.*

HAB. On old logs in swamps, Central New York to Canada and New England.

356. Plagiothecium turfaceum.

Lindb. — *Schimp. Synop. Musc. Europ. p. 692; Sulliv. Icon. Musc. Suppl. 1, ined.*

HAB. On the ground in woods, and on decayed wood in cedar swamps, Palisades, New Jersey, to Canada; rather scarce.

357. *Plagiothecium striatellum*.

(*Brid.*) — *Plagiothecium Muhlenbeckii*, *Bryol. Europ.*
V. t. 499.

HAB. On the ground and on rocks in mountainous regions, New Jersey and New York.

358. *Plagiothecium striatellum*.

Var. β . *chrysophylloides*, *Schimp. Synop. Musc. Europ.*
p. 581.

HAB. On the ground in woods and swamps; very common in New Jersey.

359. *Plagiothecium denticulatum*.

(*Dill.*) — *Bryol. Europ.* V. t. 501.

HAB. On damp shaded rocks, Little Falls, New York.

360. *Plagiothecium denticulatum*, var.

HAB. On the ground in wet woods and swamps, common.

361. *Plagiothecium denticulatum*.

Var. *pusillum*.

HAB. On flat rocks in the shade of Hemlocks; also on the roots of trees in dry woods, New Jersey and New York, rare.

362. *Plagiothecium denticulatum*.

Var. *lætum*. — *Pl. lætum*, *Bryol. Europ.* V. t. 495.

HAB. On rocks, in mountainous localities.

363. *Plagiothecium sylvaticum*.

(*Linn.*) — *Bryol. Europ.* V. t. 503.

HAB. Deep wooded ravines, on the mountains of New Jersey, New York, and New England.

364. *Plagiothecium sylvaticum*, var. 1.

Pl. *Sullivantiæ*, *Schimp.* — *Sulliv. Icon. Musc.* p. 207,
t. 126.

HAB. Crevices of rocks and rocky banks, common.

365. *Plagiothecium sylvaticum*, var. 2.

Pl. *Roseanum* (*Hampe*). — *Bryol. Europ.* V. t. 504.

HAB. On tussocks and about the roots of trees in swamps; common
in New Jersey.

366. *Plagiothecium* ? *subfalcatum*, *Austin*.

Sulliv. Icon. Musc. Suppl. 1, *ined.*

Demissum, intricato-cæspitosum, læte viride, nitidum ;
caule prostrato inordinate ramoso ; foliis remotis
distichis complanatis oblique oblongis acutatis hori-
zontaliter patentibus rursus subfalcatis apice serrato-
dentatis, marginibus inferioribus anguste reflexis
haud decurrentibus, costa brevi inæquali-furcata ;
reti lineari angustissimo : fl. et fr. ignotis.

Planta insertæ sedis forsan *Rhynchostegiis* adnume-
randa.

HAB. Crevices of rocks among the mountains of New Jersey and
New York (*Austin*) ; Pennsylvania, *James* ; rare.

367. *Amblystegium serpens*.

Var. *tenellum*.

HAB. On old logs, &c., in damp places, rare.

368. *Amblystegium confervoides*.

(*Brid.*) — *Bryol. Europ.* VI. t. 562.

HAB. On limestone rocks, New Jersey to Ohio and Canada.

369. *Amblystegium subtile*.

Hedw. — *Bryol. Europ.* VI. t. 561.

HAB. On the roots of trees, Herkimer County, New York.

370. *Amblystegium adnatum*.

(*Hedw.*) — *Sulliv. Icon. Musc.* p. 197, t. 121.

HAB. On stones and roots of trees, very common.

371. *Amblystegium Lescurii*.

Sulliv. Icon. Musc. p. 203, t. 124.

HAB. On rocks in mountain rivulets, New Jersey and New York,
rare.

372. *Amblystegium compactum*.

(*C. Mull.*) — *Sulliv. Icon. Musc.* p. 201, t. 123.

HAB. On rotten wood, near Belleville, Canada West, *Macoun*.

373. *Amblystegium serpens*.

(*Linn.*) — *Bryol. Europ.* VI. t. 564.

HAB. On the roots of trees and old walls, common in limestone and
slate regions.

374. *Amblystegium serpens*, var.

HAB. In old wells, with the preceding.

375. *Amblystegium serpens*.

VAR. IRRIGUUM. — *Hypnum irriguum*, *Hook. & Wils.*

HAB. On wet rocks, &c., Little Falls, New Jersey.

376. *Amblystegium serpens.*

Var. RADICALE. — *Hypnum radicale*, Beauv.

HAB. On the roots of trees, old logs, and on the ground, common.

377. *Amblystegium serpens.*

Var. RADICALE *subjulaceum*.

HAB. On limestone fences, along dusty highways, Sussex County,
New Jersey.

378. *Amblystegium serpens.*

Var. RADICALE *parvulum*.

HAB. On the trunks of trees in dry woods, New Jersey.

379. *Amblystegium serpens.*

Var. ORTHOCLADON. — *Hypnum orthocladon*, Beauv.
— *Sulliv. Icon. Musc. p. 199, t. 122.*

HAB. Same as No. 376, which plainly passes into this.

380. *Amblystegium serpens.*

Var. ORTHOCLADON *major*.

HAB. Springy places in swamps.

381. *Amblystegium serpens.*

Var. ORTHOCLADON *brevifolium*. — *A. oligorrhizon*, Gumb.

HAB. On rocks in rivulets.

382. *Amblystegium serpens.*

Var. ORTHOCLADON *fontanum*.

HAB. In limestone springs, New Jersey.

383. *Amblystegium serpens*.

Var. *chrysophylloides*.—*A. curvipes*, *Bryol. Europ.* t. 569.

HAB. On wet ground among grass.

384. *Amblystegium serpens*, var.

A. Juratzkanum, *Schimp. Synop.* p. 693.

HAB. On old logs in swamps.

385. *Amblystegium serpens*.

Var. *IRRIGUUM noterophilum*.—*A. noterophilum*, *Sulliv. & Lesqx.*—*Sulliv. Mosses of the U. S.* p. 78.

HAB. Limestone springs, Lancaster, Pennsylvania, *Prof. T. C. Porter*; Western New York, *Clinton*.

386. *Amblystegium fluviatile*.

(*Swartz*).—*Bryol. Europ.* VI. t. 567.

HAB. On rocks in a rivulet near Closter, New Jersey; sterile.

387. *Amblystegium riparium*, var. 1.

(*Linn.*) — *Bryol. Europ.* VI. t. 570.

HAB. In rivulets and springs, common.

388. *Amblystegium riparium*, var. 2.

HAB. Inundated places in swamps.

389. *Amblystegium riparium*, var. 3.

HAB. Same as the preceding.

390. *Amblystegium riparium*.

Var. *cariosum*, *Sulliv. in litt.*

HAB. On rotten wood, in the Western States and Canada.

391. *Hypnum Bergenense*, Austin.

Hypnum chrysophyllum referens, sed differt caule debiliore parcius ramoso; foliis dissitioribus mollioribus longius graciliusque acuminatis, reti majore laxiore, perichætalibus minus profunde sulcatis; pedicello pro more longiore; inflorescentia parasitico-monoica, flore masc. ad perichætii basin radiculis obruto, etc. — *Sulliv. Icon. Musc. Suppl. 1, ined.* — *Campylium Bergenense*, *Aust. Mss.*

HAB. On decaying leaves, &c. in partially inundated places, about Closter, New Jersey, very common; also in York County, Maine.

392. *Hypnum hispidulum*.

Brid. Sp. Musc. II. p. 198 (1812); Mantissa, p. 175 (1819); Muller Synop. Musc. II. p. 440 (1851); Sulliv. Icon. Musc. p. 193, t. 119. — *H. stellatum*, var. *Brid. Bryol. Univ. p. 603 (1827).*

HAB. On the ground, roots of trees, dead wood, rocks, &c., common.

393. *Hypnum hispidulum*, var.

Hypnum Sommerfeltii, *Myrin, Vet. Acad. Arsh. Stockh. 1831, p. 394; Bryol. Europ. VI. t. 582.* — *H. polymorphum*, (*Hedw.*) *Wils. Bryol. Brit.*

HAB. Roots of trees, rocks, &c., White Mountains of New Hampshire, *James*; mountains of Pennsylvania, *Porter*; also in cedar swamps, near Jordansville, New York.

394. *Hypnum chrysophyllum*.

Brid. — *Hypnum polymorphum*, *Hook. & Tayl. — Bryol. Europ. VI. t. 583.*

HAB. On the ground in fields and woods, very common.

395. *Hypnum chrysophyllum*.

Var. *cæspitosum*.

HAB. About the roots of trees in damp woods.

396. Hypnum chrysophyllum.

Var. rupestre.

HAB. On shaded or dripping rocks, common.

397. Hypnum chrysophyllum.

Var. stelloides.

HAB. Moist rocky banks and wet meadows.

398. Hypnum chrysophyllum.

Var. uncinifolium.

HAB. Moist rocky banks, Hohokus, New Jersey.

399. Hypnum stellatum.*Schreb. — Bryol. Europ. VI. t. 584.*HAB. Wet meadows; Ohio, *Sullivan*; Canada, *Macoun*; also near Closter, New Jersey.**400. Hypnum stellatum.**Var. protensum. — *Hypnum protensum, Brid. Bryol. Univ.*HAB. Bogs and swamps near Closter, New Jersey, and Little Falls, New York; also Canada, *Macoun*.**401. Hypnum polygamum.***Schimp. — Amblystegium polygamum, Bryol. Europ. VI. t. 572.*HAB. Swamps about Closter, New Jersey, rare. New York, *Paine, Peck*.

402. Hypnum vernicosum.

Lindb. in Hartm. Skand. Fl. ed. 8 (1861); Bryol. Europ. Suppl. Fasc. III. IV. t. 4.

HAB. In open bogs and marshes, about Budd's Lake, New Jersey, and Jordansville, New York.

403. Hypnum exannulatum.

Gumb. — Bryol. Europ. VI. t. 602.

HAB. In marshy places, not common.

404. Hypnum aduncum.

Hedw. — Bryol. Europ. VI. t. 604.

HAB. Cedar swamps, Herkimer County, New York.

405. Hypnum aduncum, var. 1.

HAB. On wet rocks, Little Falls, New Jersey.

406. Hypnum aduncum, var. 2.

HAB. Marshy places, Sussex County, New Jersey.

407. Hypnum aduncum.

Var. *gracilescens*, *Bryol. Europ. VI. t. 605.*

HAB. On the ground in exsiccated places, common.

408. Hypnum aduncum.

Var. *giganteum*, *Bryol. Europ. VI. t. 606.*

HAB. In Budd's Lake, Morris County, New Jersey.

409. Hypnum aduncum.

Var. giganteum, 2.

1.

HAB. Ditches near Little Falls, New York.

410. Hypnum fluitans.*Linn.* — *Bryol. Europ.* VI. t. 602.

HAB. Stagnant or sluggish water, common.

411. Hypnum Kneiffii.*Bryol. Europ.* VI. t. 573 (sub *Amblystegio*).

HAB. In sunken places, about Closter, New Jersey.

412. Hypnum uncinatum.*Hedw.* — *Bryol. Europ.* VI. t. 600.

HAB. A, on shaded rocks, B, on old logs in Herkimer County, New York; C, on an old stone fence near Closter, New Jersey.

413. Hypnum filicinum.*Linn.* — *Bryol. Europ.* VI. t. 609.

HAB. Moist rocky banks, in limestone regions, common.

414. Hypnum pallescens.*Schimp. Bryol. Europ.* VI. t. 586. — *Hypnum hamulosum?* *Sulliv. & Lesq. Musc. Exsic. ed. 2. n. 478.*HAB. On *Kalmia latifolia*, in swamps, on the mountains of New Jersey; also in the White Mountains of New Hampshire, *Oakes, James.***415. Hypnum reptile.***Michx.* — *Bryol. Europ.* VI. t. 587.

HAB. On the roots of trees, decayed logs, and on stones near the ground, very common.

416. Hypnum reptile.

Var. viride.

HAB. On the roots of trees in woods.

417. Hypnum fertile.*Sendtn. — Bryol. Europ. VI. t. 591.*HAB. On old logs in swamps, in mountainous or northern regions ;
New York, &c.**418. Hypnum imponens.***Hedw. — Bryol. Europ. VI. t. 597.*HAB. On decayed logs in woods and among Sphagna in swamps ;
also on white sand in the dry pine barrens of New Jersey ; very
common.**419. Hypnum cupressiforme (var. 1).***Linn. — Bryol. Europ. VI. t. 594.*

HAB. On shaded rocky banks, Little Falls, New Jersey.

420. Hypnum cupressiforme, var. 2.*Hypnum resupinatum, Wils. Bryol. Brit. p. 338.*

HAB. On dry rocks, New Jersey, New York, &c.

421. Hypnum cupressiforme, var. 3.HAB. On the roots of trees and on boulders in dry rocky woods, near
Closter, New Jersey.**422. Hypnum cupressiforme, var. 4.**

HAB. On rocks and roots of trees, New Jersey, &c.

423. Hypnum cupressiforme, var. 5.

HAB. Same as the preceding.

424. Hypnum curvifolium.

Hedw. — *Sulliv. Icon. Musc. p.* 183, *t.* 114.

HAB. On decayed wood, wet ground, and on rocks, very common.

425. Hypnum pratense.

Koch. — *Bryol. Europ. VI. t.* 611.

HAB. On the ground in swampy places; common in New Jersey.

426. Hypnum pratense, var. ?

HAB. On tussocks and on old logs in cedar swamps, near New Durham, New Jersey.

427. Hypnum micans.

Swartz Adnot. Botan. p. 175 (1829).

HAB. On inundated logs, &c. in cedar swamps, Louisiana to New England.

428. Hypnum micans.

Var. *fulvum*. — *H. fulvum*, *Hook. & Wils. in Drumm. Musc. Amer. Coll. 2, n.* 110; *Sulliv. Icon. Musc. t.* 125 (1864).

HAB. Same as the preceding, in the Southern States and in Southern New Jersey.

429. Hypnum micans.

Var. *album*. — *H. album*, *C. Mull. Synop. Musc. 2, p.* 280 (1851); *Sulliv. Icon. Musc. t.* 112 (1864).

HAB. On decaying leaves, &c. on the margins of stagnant pools, near Closter, New Jersey.

430. Hypnum Haldanianum.

Grev. Ann. Lye. Nat. Hist. New York, p. 275, t. 23; Bryol. Europ. VI. t. 592.

HAB. On the ground, old logs, &c. in woods, common.

431. Hypnum Haldanianum, var. 1.

HAB. In partly inundated swamps, about Clôster, New Jersey.

432. Hypnum Haldanianum, var. 2.

HAB. On the roots of trees in dry woods.

433. Hypnum molluscum.

Hedw. — Bryol. Europ. VI. t. 598.

HAB. On the ground in damp woods, common; usually sterile.

434. Hypnum Crista-castrensis.

Linn. — Bryol. Europ. VI. t. 599.

HAB. On the ground and on decaying logs in deep damp woods and swamps, Clôster, New Jersey, rare; common in mountainous or northern regions.

435. Hypnum palustre.

Linn. — Limnobium palustre, Bryol. Europ. VI. t. 574.

HAB. On rocks in mountain rivelets, Northern New Jersey to Canada,
rare.

436. Hypnum molle.

Dicks. — Limnobium molle, Bryol. Europ. VI. t. 577.

HAB. On rocks along streams, Northern New Jersey and New York,
rare.

437. Hypnum ochraceum.

Turner. — *Limnobium ochraceum*, *Bryol. Europ.* VI. t. 580.

HAB. Same as the preceding ; rarely fertile.

438. Hypnum eugyrium.

Limnobium eugyrium, *Schimp.* — *Bryol. Europ.* VI. t. 579.

HAB. On rocks along streams, near Marathon, New York ; also near Sand Lake, *Peck* ; rarely fertile.

439. Hypnum Closteri, Austin.

Parvulum, laxe diffusum, sordido-viride ; caule prostrato parcius ramoso defoliato, ramulis assurgentibus ; foliis laxis undique patentibus vel plus minus subsecundis oblongo-ovalibus ovatis elongato-ovatisve obtuse acutatis symmetricis vel leniter obliquatis integerrimis $\frac{1}{2}$ — $\frac{3}{4}$ -costatis, cellulis plerumque oblongo-linearibus subfusiformibus illis ad basis angulos subdecurrentes majoribus subinflatissimis concoloribus (vel fuscis ?) perichætalibus plus minus distincte costatis subsulcatis ; capsula erecto-cernua sensim in pedicellum crassiusculum angustata, annulo latiusculo composito, operculo amplo mamillato apiculato, peristomio generis. — *Sulliv. Icon. Musc. Suppl.* 1, ined. — *Limnobium Closteri*, *Aust. Mss.*

Limnobium Norvegico Br. *Europ.* persimile, sed differt foliis longioribus longius et omnino simpliciter costatis, basi haud auratis, capsula majore basi acutius, peristomii processibus haud integris, etc.

HAB. On rocks along rivulets, about Closter, New Jersey ; also on Shawangunk Mountain (*Sam's Point*), New York, very rare.

440. Hypnum Novæ-Cæsareæ.

Austin. — Hypnum micans, *Wils. in Hook. Brit. Fl.* II. pars I. p. 83 (1833) ; *non Swartz Adnot. Botan.* p. 175 (1829) quod ad Hypnum albulum *C. Mull. Synop. Musc.* II. p. 280 (1851) pertinet (e Sullivan specim. orig. compar.) — *Limnobium Novæ Cæsareæ, Aust. Mss.*

HAB. On rocks in a small rivulet, which crosses the "State Line" between New York and New Jersey, on Shawangunk Mountain near *High Point* ; sterile.

441. Hypnum cordifolium.

Hedw. — *Bryol. Europ.* VI. t. 615.

HAB. Swamps, common.

442. Hypnum cordifolium.

Forma actumnalis.

HAB. Same as the preceding.

443. Hypnum giganteum.

Schimp. Syn. Musc. Europ. p. 612. — Hyp. cordifolium var. stenodictyon, *Bryol. Europ.*

HAB. Cedar swamps near Jordansville, &c., New York. Canada, *Macoun* ; sterile.

444. Hypnum cuspidatum.

Linn. — *Bryol. Europ.* VI. t. 619.

HAB. Bogs, common.

445. Hypnum Schreberi.

Willd. — *Bryol. Europ.* VI. t. 620.

HAB. On the ground in woods, very common.

446. Hypnum scorpioides.

(*Dill.*) — *Bryol. Europ.* VI. t. 612.

HAB. In bogs, Ohio, *Sulliv.*, *Lesqx.*; also Canada, *Macoun*; sterile.

447. Hylocomium splendens.

(*Hedw.*) — *Bryol. Europ.* V. t. 487.

HAB. On the ground in woods, Northern New Jersey (sterile), and common northward.

448. Hylocomium brevirostre.

(*Ehrh.*) — *Bryol. Europ.* V. t. 493.

HAB. Deep shaded ravines and swamps, common; sterile in New Jersey.

449. Hylocomium triquetrum.

(*Linn.*) — *Bryol. Europ.* V. t. 491.

HAB. On the ground in woods, common; sterile in New Jersey.

450. Rhytidium rugosum.


(*Ehrh.*) *Sulliv.* — *Hypnum rugosum*, *Bryol. Europ.*
VI. t. 610.

HAB. On flat rocks on the Palisades, New Jersey, common; sterile.

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Musci **Appalachiani**

SUPPLEMENT I.

Tickets of (100) specimens of

MOSES

Collected mostly in the Eastern part of North America.

BY COE F. AUSTIN.

CLOSTER, NEW JERSEY.
1878.

AUSTIN, MUSCI APPALACHIANI: Supplement I.

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MUSCI APPALACHIANI:

SUPPLEMENT I.



451. *Sphagnum papillosum*.

LINDB. Act. Soc. Sci. Fennicæ, X, p. 280 (1872); Manip. Muse.
Secundus, p. 392.

HAB. Bogs; New Brunswick, Canada, *Fowler*; New Jersey,
Austin.

452. *Sphagnum squarrosum*.

var. *teres*. *S. teres*, ANGSTRÖM.

[The specimens given under No. 21 in most of the former sets, are from
South Jersey, and belong to *Sph. molle*, SULLIV.]

HAB. British Columbia, *Macoun*. (Also near Closter, New
Jersey, *Austin*.)

453. *Sphagnum serratum*.

AUST. in the Bulletin of the Torrey Botanical Club, VI, p. 145 (1877).

HAB. Marshes, Florida, *John Donnell Smith*; common.

454. *Archidium tenerrimum*.

MITT. in the Jour. of the Proc. of the Linn. Soc., VIII, n. 29, p. 17.

HAB. Florida, *J. D. Smith*.

455. *Archidium Donnellii*.

AUST., Torr. Club Bull. VI, p. 190.

HAB. Environs of Hampden Sidney College, Prince Edward
Co., Virginia, April, 1877, *John Donnell Smith*.

456. Ephemeron crassinervium.

(SCHWÆGR.)—SULLIV. Icones, p. 17, t. 8: non AUST. ENSIC. nrr. 48 et 49 quæ ad **E. spinulosum**. BR. & SCH. pertinent.

HAB. Damp ground, throughout the Northern States.

457. Pleuridium Ravenelii.

AUST. Torr. Club Bull. VI, p. 142.—**Pl. subulatum**, AUCTT.
AMER. ex parte.

HAB. South Carolina, *Ravenel*; Rhode Island, *Bennett*; New Jersey, *Austin*.

458. Pleuridium Sullivanti.

AUST. l. c.—**Pl. nervosum**, SULLIV. Icones, p. 19, t. 8; non Hook.

HAB. Aiken, South Carolina, *Ravenel*.

459. Pleuridium alternifolium, var.

HAB. Damp ground, South Carolina, *Ravenel*.

460. Bruchia Ravenelii.

WILS.—SULLIV. Icon. p. 26, t. 16.

HAB. S. Car., *Ravenel*; Alabama, *Mohr*. (Feb.)

461. Bruchia Carolinæ.

AUST. Torr. Club Bull. VI, p. 144.

HAB. Aiken, S. Car., *Ravenel*. (Feb.)

462. Bruchia brevipes.

HOOK.—SULLIV. Icon. p. 24, t. 14.

HAB. S. Car., *Ravenel*. (Feb.)

463. Bruchia Texana.

AUST. Torr. Club Bull. V, p. 21. (1874).

HAB. Texas to Virginia, *Hall*, *Ravenel*, *Smith*. (March, April.)

464. Bruchia Donnellii.

AUST. Torr. Club Bull. VI, p. 144.

HAB. Jacksonville, Florida, *J. Donnell Smith*. (Mar.)

465. Weisia Rauei.

Gymnostomum Rauanum, AUST. in Torrey Club Bulletin V, p. 21.

HAB. On clay banks, Bethlehem, Pa., *Rau*.

**466. Weisia viridula,
var. australis.**

HAB. Florida to Texas.

467. Dicranum gracilens.

WEB. & MOHR.—BRYOL. EUROP. t. 45 et 46.

HAB. Alpine regions of the White Mountains; also northern shore of Lake Huron, *Macoun*.

468. Dicranum debile.

HOOKE. & WILS.—SULLIV. Icon. p. 33, t. 20. (*Weisia exigua*, SCHWGR.?)

HAB. S. Car., *Ravenel*; Ala., *Mohr*.

469. Dicranum subulatum.

HEDW.—BRYOL. EUROP. t. 60.

HAB. Alpine and subalpine regions of the White Mts.; common.

470. Dicranum subleucogaster.

C. MULL.—C. MOHR in Torr. Club Bull. V, p. 49.

HAB. Florida, *J. D. Smith*. (ster.)

471. Dicranum elongatum.

SCHWGR.—BRYOL. EUROP. t. 76.

HAB. Alpine and high northern regions; New England to the Rocky Mountains.

472. Dicranum fuscescens.

TURN.—BRYOL. EUROP. t. 77; sub *D. congesto*, BRID.

HAB. Mountains of Pennsylvania to New England and northward and westward.

**473. *Dicranum scoparium*,
var. *orthocarpum*.**

HAB. Woods, near Closter, N. J.

474. *Dicranum Drummondii*.

C. MULL., WILS.—SULLIV. Icon. Suppl. p. 48, t. 33.

(The specimens given under No. 98 belong to *D. undulatum*.)

HAB. Mountains of New York and New England; also throughout British America.

475. *Trematodon ambiguus*.

(HEDW.) HORNSCH.—BRYOL. EUROP. t. 96.

HAB. Maryland to Canada; not common.

476. *Trematodon longicollis*.

MICHX.—SULLIV. Icon. p. 31, t. 19.

HAB. Low grounds, Closter, New Jersey, rare; also in the South.

477. *Leucobryum vulgare*.

var. *minus*. *L. minus*, HAMP.

SULLIV. Mosses of the U. S. p. 24.

HAB. Southern States, common.

478. *Octoblepharum albidum*.

(LINN.)—MITT. Jour. of the Linn. Soc. Vol. XII, p. 109.

HAB. Florida, *J. D. Smith*. (Also in Texas.)

479. *Fissidens Closteri*.

AUST. in Torr. Club Bull. V, p. 21; SULLIV. Icon. Suppl. p. 44, t. 29.

HAB. On rocks along rivulets. Palisades, near Closter, New Jersey. (Aug., Sept.)

480. *Fissidens obtusifolius*.

HOOK. & WILS.—SULLIV. Icon. p. 35, t. 22.

HAB. Banks of ravines, Springfield, O., *Miss H. J. Biddlecome*.

481. *Fissidens Ravenelii*.

SULLIV. Icon. p. 39, t. 25.

HAB. S. Car., *Ravenel*; Florida, *J. D. Smith*.

482. Fissidens decipiens.

DE NOT.—SULLIV. Icones, Suppl. p. 46, t. 31. (**F. circinans**, SCHNEP?)
F. rupestris, WILS.

HAB. On trunks and roots of trees, old logs, &c., in swamps, Florida, *J. D. Smith*, common; also near Urbana, Ohio, *Miss Biddlecome*.

483. Fissidens grandifrons.

BRID.—BRYOL. EUROP. t. 106.

HAB. Wet rocks, Niagara Falls and northwestward to the Rocky Mountains.

484. Blindia acuta.

(DILL. DICKS.)—BRYOL. EUROP. t. 114.

HAB. Mountains of New York and northward.

485. Swartzia montana.

(LAM.) LINDB.—**Distichium capillaceum**. (DICKS.)—BR. EUR. t. 193.

HAB. New Brunswick (*Fowler*) and westward to the Rocky Mts.

486. Swartzia inclinata.

HEDW.—**Distichium inclinatum**, BRYOL. EUROP. t. 194.

HAB. Lake Superior region and westward, *Mucoun*.

487. Syrrhopodon Floridanus.

SULLIV. Icon. p. 49, t. 31.

HAB. Trunks of trees, old logs, &c., Florida, *J. D. Smith*.

488. Syrrhopodon Texanus.

SULLIV. Icon. Suppl. p. 32, t. 20.

HAB. Trunks of trees, old logs, &c., Florida, *J. D. Smith*.

489. Calymperes Richardi.

C. MULL.—MITT. Jour. Proc. Linn. Soc. XII, p. 127.

HAB. Trunks of trees, Florida, *J. D. Smith*.

490. *Leptotrichum heteromallum*.

LINDB.—AUST. in Torrey Club Bulletin VI,
p. 73 (1876)—**L. Sullivanti**, AUST. MSS.

HAB. Roadsides, &c. region of the White Mountains, common.

491. *Trichostomum luridum*.

HORNSCH.—BRYOL. EUROP. t. 186; sub **Didymodonte**.

HAB. Dry rocks in the region of the Great Lakes.

492. *Tortula tortifolia*.

JAMES ined.; sub **Trichostomo**. (*Syrrophodon tortus*, JAMES, olim.)

HAB. On coquina rocks, St. Augustine, Florida, *John Donnell Smith*.

493. *Tortula plinthobia*.

SULLIV. & LESQ.—SULLIV. Icon. p. 47, t. 30; sub **Desmatodonte**.

HAB. Brick walls and pavements in the Southern States.

494. *Tortula agraria*.

SWARTZ.—SULLIV. Mosses of the U. S. p. 80.

HAB. West Florida, *J. D. Smith*.

495. *Tortula Rauei*.

AUST. in Torr. Club Bull. VI, p. 43; sub **Barbula**.

HAB. On rocks, Matagorda County, Texas, *R. G. Bechdolt*.

496. *Tortula recurvifolia*.

SCHIMP. Synop. p. 170.

HAB. On rocks, Hoboken, New Jersey; Suffern, Watkin's Glen and Niagara Falls, New York; also region of the Great Lakes, *Macoun*, and Colorado, *H. A. Warne*.

497. *Tortula subulata*.

LINN.—**T. mucronifolia**, SCHWGR.—BRYOL. EUROP. tt. 160 et 162.

HAB. Northern New York and New England and throughout British America.

498. Ptychomitrium Drummondii.

(H. & W.)—SULLIV. Icon. p. 65. t. 40.

HAB. Roots of trees, South Carolina and southern Illinois to the Gulf of Mexico.

499. Schlotheimia Sullivanti.

C. MULL.—SULLIV. Icon. p. 61, t. 38.

HAB. On trees, Florida, *J. D. Smith*.**500. Grimmia Donniana.**

SMITH.—BRYOL. EUROP. t. 249.

HAB. Alpine region of the White Mountains, New Hampshire.

501. Grimmia unicolor.

GREY.—BRYOL. EUROP. t. 260.

HAB. Canada, *Macoun*; also Catskill Mts., New York, *Rau*.**502. Racomitrium fasciculare.**

(DILL.) BRID.—BRYOL. EUROP. t. 267.

HAB. Rocks in mountains; Alleghanies and northward.

503. Racomitrium canescens.

(DILL.) BRID.—BRYOL. EUROP. t. 270 et 271.

HAB. High mountains; New England to Vancouver's Island.

504. Racomitrium lanuginosum.

(DILL.) BRID.—BRYOL. EUROP. t. 269.

HAB. High mountains; New England to Vancouver's Island.

505. Discelium nudum.

(DICKS.) BRID.—BRUCH & SCHIMPER, BRYOL. EUROP. t. 297.

HAB. Clay banks, Bethlehem, Pa., *Rau*; Ohio, *Beardslee*; also Canada and westward to Vancouver's Island, *Macoun*.**506. Funaria Drummondii.**LINDB.—*Entosthodon Drummondii*, SULLIV. Icon. p. 91, t. 55.HAB. Mobile, Alabama, *Dr. Chas. Mohr*.

507. Funaria serrata.

BEAUV.—SULLIV. Icon. p. 89, t. 54.

HAB. Texas, *Ravenel*; Alabama, *Mohr*.**508. Funaria hygrometrica.**var. *calvescens*, HEDW.—BRYOL. EUROP. t. 305.HAB. S. Car., *Ravenel*; Florida, *J. Donnell Smith*.**509. Mielichhoferia? compacta.**AUST.—*Bryum compactum*, AUST. in Bot. Gazette, II, p. 111.HAB. Alpine regions of the White Mountains, common; also Shawangunk Mountain (Sam's Point), New York, *Austin*; British America, *Macoun*: sterile.**510. Bryum elongatum.**

DICKS.—BRYOL. EUROP. t. 341, 342.

HAB. Region of the White Mountains; common. (Aug., Sept.)

511. Bryum concinnatum.

SPRUCE, C. MULL.—LINDB. Manip. Musc. Primus (1870) p. 44.

HAB. Cauterskill Falls, Catskill Mountains, *Peck*.**512. Bryum Macouni.**

AUST. in Bot. Gazette for June, 1877, p. 110.

HAB. British Columbia, *Macoun*.**513. Bryum provinciale.**

PHILIB.—SCHIMP. Synop. ed. 2.

HAB. Florida, *J. D. Smith*; common.**514. Bryum Duvalii.**VOIT.—BRYOL. EUROP. t. 371: non AUST. Exsic. n. 202, quod est *B. pallens*, SWARTZ.HAB. British Columbia, *Macoun*.**515. Mnium Drummondii.**

BRUCH & SCHIMPER.—SULLIV. Icon. p. 83, t. 51.

HAB. Mountains of New York and New England and northward and westward.

516. Rhizogonium spiniforme.

(LINN. HEDW.)—MITT. in the Jour. of the Linn. Soc. XII, p. 326.

HAB. On tussocks, etc. in the Gulf States; common.

517. Aulacomnion turgidum.

WAHLENB.—BRYOL. EUROP. t. 404.

HAB. Alpine regions of the White Mountains; sterile.

518. Meesia trichodes.(LINN.) SPRUCE.—*M. uliginosa*, HEDW.—BRYOL. EUROP. t. 308.HAB. Near Albany, New York, *Peck*; also British Columbia, *Macoun*.**519. Meesia longiseta.**

HEDW.—BRYOL. EUROP. t. 309.

HAB. Near Albany, New York, *Peck*; also British Columbia, *Macoun*; rare.**520. Paludella squarrosa.**

(LINN.) EHRH.—BRYOL. EUROP. t. 312.

HAB. Swamp near Jordansville, New York, *Peck*; also British Columbia, *Macoun*.**521. Polytrichum alpinum.**LINN.—BRYOL. EUROP. t. 418; sub *Pogonato*, BRID.

HAB. Throughout British Amer. and southward in the mountains

522. Polytrichum urnigerum.LINN.—BRYOL. EUROP. t. 417; sub *Pogonato*.

HAB. Region of the White Mountains; very common.

523. Polytrichum capillare.MICRX.—SULLIV. Icon. p. 79, t. 49; sub *Pogonato*.

HAB. Alpine region of the White Mountains; scarce.

524. Fontinalis disticha?

H. & W.—SULLIV. Icon. p. 103, t. 63.

HAB. Rocky rivulets, Mts. of New Jersey and Pennsylvania.

525. Dichelyma pallescens.

BR. & SCH. Bryol. Europ.

HAB. On sticks, etc., margin of Oneida Lake, N. Y., *A. Barron*.**526. Cryphæa glomerata, var.****C. pendula**, LESQX. ined.HAB. Trunks of trees, Florida, *J. Donnell Smith*.**527. Leptodon trichomitrium.****var. immersus**, SULLIV. Icon. p. 112.HAB. Florida, *J. D. Smith*.**528. Neckera oligocarpa.**

BR. & SCH. Bryol. Europ. t. 441.

HAB. Fissures of dry rocks, Catskill Mountains, *Austin & Rau*.**529. Neckera undulata.**

HEDW.—MITT. in the Jour. of the Linn. Soc. XII, p. 452.

HAB. Trunks of trees, West Florida, *J. D. Smith*.**530. Neckera disticha.**

SWARTZ.—MITT. l. c. p. 451.

HAB. Trunks of trees, West Florida, *J. D. Smith*.**531. Neckera cymbifolia.**(SULLIV.) C. M.—**Pilotrichum cymbifolium**, SULLIV. Icon.
p. 122, t. 76 B.HAB. Trunks of trees, West Florida, *J. D. Smith*.**532. Neckera Ludovicicæ.**

C. MULL.—C. MOHR in Torr. Club Bull. V, p. 50.

HAB. Trunks of trees, West Florida, *J. D. Smith*.**533. Meteorium nigrescens.**

(SWARTZ).—MITT. in the Jour. of the Linn. Soc., XII, p. 441.

var. Donnellii.HAB. Trunks of trees, West Florida, *J. Donnell Smith*.

534. Clasmatodon parvulus.

HOOK. & WILS.—SULLIV. Icon. Suppl. p. 126, t. 79.

HAB. On trees, etc. in the Southern States; common.

535. Fabronia octoblepharis.

(SLEICH.)—BRYOL. EUROP. t. 451.

HAB. On rocks and trees at the Delaware Water Gap, New Jersey, *Austin, Ran.***536. Hookeria varians.**

SULLIV. Musci Cubensis Wrightiani (p. 285.)

HAB. On the ground, Florida, *J. D. Smith, Ravenel.***537. Pylaisæa polyantha.**

(SCHREB.)—BRYOL. EUROP. t. 455.

HAB. On trees, Lake Superior and westward, *Macoun*; common.**538. Cyandrothecium Drummondii.**

SCHIMP.—SULLIV. Icon. p. 148 t. 94.

HAB. Low grounds in the Southern States; common.

539. Thuidium gracile.var. *Ravenelii*, S. & L.

HAB. On the ground, etc. throughout the Southern States; very common.

540. Brachythecium reflexum.

(W. & M.)—BRYOL. EUROP. t. 559.

HAB. Rocks in the region of the White Mts.; also in the region of Lake Huron, *Mrs. Jessie Roy.***541. Rhynchostegium demissum.**var. *Marylandicum*, S. & L. Exsic. ed. 2, n. 442.

HAB. Irrigated rocks, New England and southward in the mountains.

542. *Amblystegium serpens.*
var. *longifolium.*

HAB. Marshes, Florida, *J. D. Smith.*

543. *Hypnum commutatum.*

HEDW.—BRYOL. EUROP. t. 607.

HAB. Wet rocks, Watkin's Glen, New York, *Wolle, Rau & Austin.* (Also in the Rocky Mts.)

544. *Hypnum Wrightii.*

SULLIV.—Icon. p. 209, t. 127.

HAB. Florida, *J. Donnell Smith.*

545. *Hypnum thelistegium.*

C. MULL.—MITT. in the Jour. of the Linn. Soc. XII, p. 504.

HAB. Florida, *J. Donnell Smith.*

546. *Hypnum montanum.*

WILS.—SULLIV. Icon. p. 181, t. 113.

HAB. On rocks in streams in the White Mt. region; frequent.

547. *Hypnum stramineum.*

DICKS.—BRYOL. EUROP. t. 617.

HAB. Throughout British America and in the Mts. southward.

548. *Hylocomium umbratum.*

(EHRH.)—BRYOL. EUROP. t. 488.

HAB. Throughout British America and in the high mountains of New England and New York.

549. *Hylocomium Oakesi.*

SULLIV. Icon. p. 159, t. 102.

HAB. Throughout British America and in the high mountains of New England and New York.

550. *Hylocomium squarrosum.*

(LINN.)—BRYOL. EUROP. t. 493.

HAB. Catskill and White Mountains.

ERRATA.

"var.," when it occurs in the text, should begin with a capital letter.

Page 2, line 15 from the bottom: for "Cryphæa pendula, Lesqx." read Cryphæa glomerata, var.—*C. pendula*, Lesqx.

" " lines 2 and 13 from the bottom,

" 3, " 11 from the top, and

" 4, " 12 from the bottom: these synonyms should be in *italics*.

" 3 " 25: for "stamineum" read stramineum.

" 4, line 19: for "Scolotheima" read Schlotheimia.

" " " 11 from the bottom: for "Plinthobia" read plinthobia.

" 5, No. 455: insert comma after "Hampden."

A CARD.

I propose to publish additional supplements to both the **MUSCI** and **HEPATICÆ EXSICCATÆ** which I have issued, as fast as I can accumulate the needed specimens. The supplements to comprise 100 sets of 10-50 specimens each; and I take this opportunity to cordially invite the co-operation of all American botanists.

✎ Liberal allowance will be made and due credit given, for 100 good specimens of any desired moss or hepatica.

✎ Except in rare mosses and those difficult to obtain, the specimens should be large and ample.

✎ Musci should be collected as soon as or a little before the capsule matures, *while the operculum* is yet present. Some species seldom or never fruit with us; these should not be neglected. Hepaticæ in general are best collected late in the fall, during the winter, or in early spring.—The *Jungermanniæ* about the time or a little before they send up the fruit-stalk. All are best collected before they shed their spores.

COE F. AUSTIN.



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